FREIGHT TRAFFIC ISSUE

Industrial traffic managers predict better business in 1966

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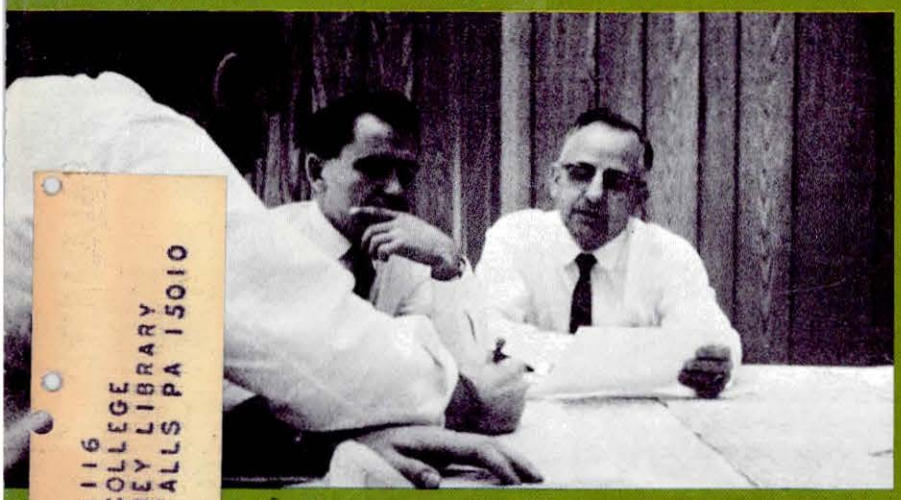
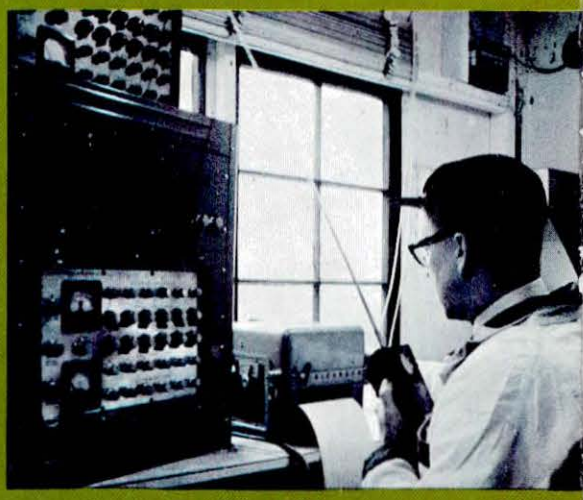
December 20/27, 1965

RAILWAY AGE WEEKLY

BATTLING L&D WITH BRAINS





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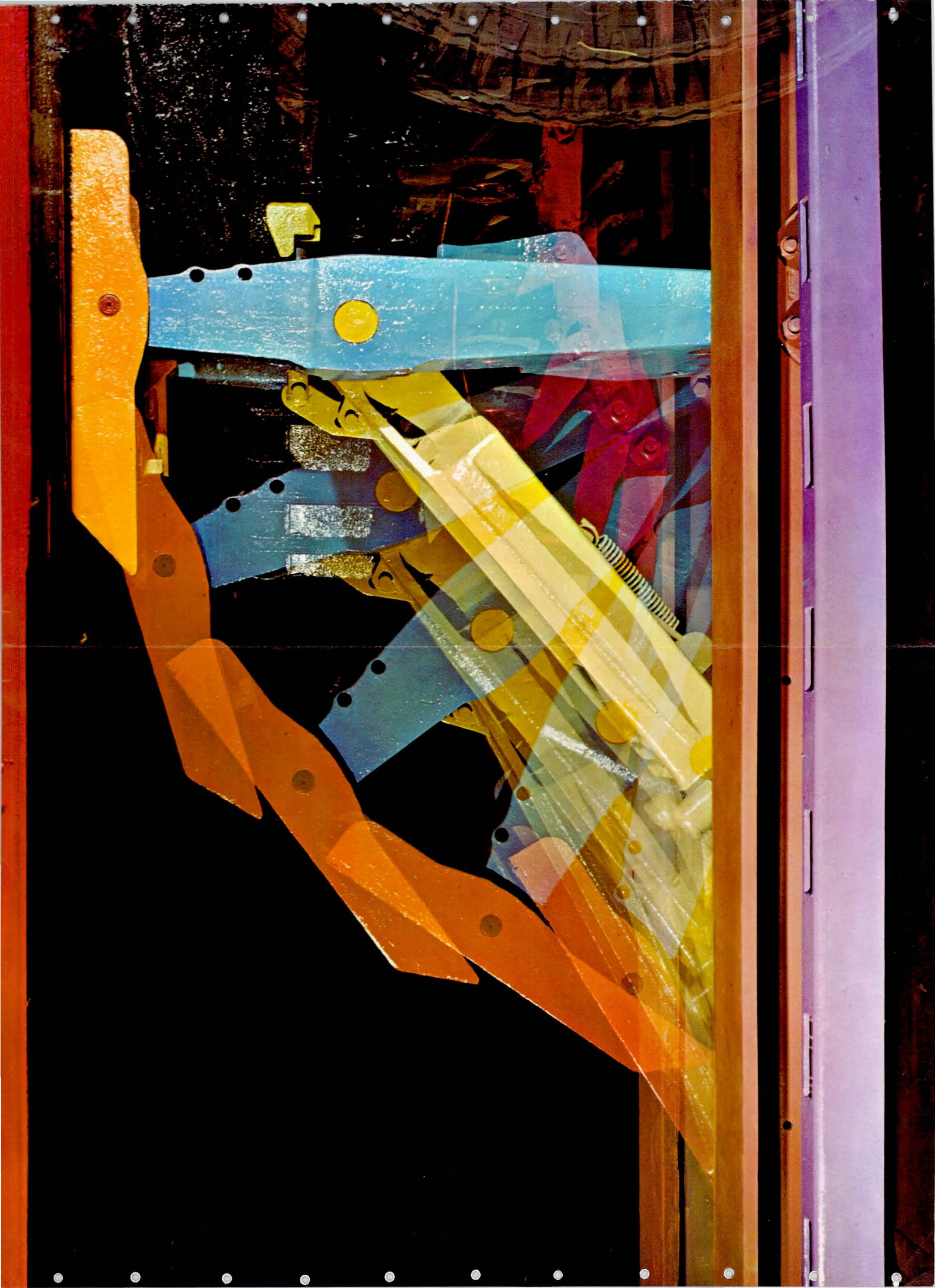

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Battling L&D with brains

Some big gains, but losses are still hefty

Although the bill for L&D keeps rising, many experts point to hopeful signs for the future. p.34

How new hardware helps combat L&D

Railroad-supplier-shipper cooperation is constantly refining anti-L&D equipment and systems. p.38

1965: A tough act to follow

The railroads scored a number of gains this past year, and the belief is that '66 will be another big year.....p.11

Coordination expected to save $827,000

A $1.3-million project means money in the pocket for the Lehigh Valley, Jersey Central and Reading. p.43

Traffic managers foresee better business

Railroads, say a majority of Traffic Poll respondents, will share in a continuing boom economy. p.49

The Action Page p.76

- Did the traffic tide turn in 1965?
- Anti-L&D work is a job for everyone.

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SHORT AND SIGNIFICANT

First quarter '66: It looks like a winner

In terms of ton-miles, railroad freight traffic in the first quarter of 1966 will be up about 7% over first-quarter-1965 levels. This prediction—from the 13 Regional Shippers Advisory Boards—is based upon an estimated 2.5% increase in the number of cars loaded. The higher ton-mile figure takes into account anticipated heavier loads and longer hauls. Boards predicting increases are: Ohio Valley, 6.6%; Southeast, 4.7%; Great Lakes, 0.5%; Central Western, 2.0%; Mid-West, 4.0%; Northwest, 5.3%; Trans-Missouri-Kansas, 4.0%; Southwest, 0.6%; Pacific Coast, 1.3%; Pacific Northwest, 2.5%. Decreases are forecast for New England, 0.4%; Atlantic States, 1.5%; and Allegheny, 1.9%.

Monon, C&O call a truce in the CSS&SB fight

Monon is withdrawing its bid for control of Chicago South Shore & South Bend—in exchange for a trackage-rights agreement which would be signed in the event the ICC approves Chesapeake & Ohio control of CSS&B. Trackage rights would give Monon access to the multi-million-dollar Burns Waterway Harbor facilities on Lake Michigan in Indiana and would also give Monon the right to move cars via CSS&SB between the Illinois-Indiana state line and Michigan City, Ind., subject to certain origin-and-destination restrictions. In addition to giving up its fight to control South Shore, Monon is also agreeing to sell its shares of CSS&SB common stock to C&O at such time as the ICC approves C&O's control petition and after control is consummated.

More commuter cars for New York area

Prospects for purchase of new cars for commuter operations serving New York City look very good, Connecticut, New York and New Jersey transit authority officers told a New York meeting last week. The state-aided programs could produce orders for 40 cars for the Pennsylvania's New Jersey operations "in 60 days;" for 500 cars over a 2½-year period for the Long Island once the Metropolitan Commuter Transportation Authority takes over; and for a new commuter fleet for the New Haven, a joint purchase by Connecticut and New York.

Budd wins 'Corridor' test-car contract

The Department of Commerce announced the award of a $952,000 contract to Budd Co. for construction of four cars for high-speed testing in the Northeast Corridor. The cars will be similar to those Budd has built for electrified Philadelphia suburban service, but they'll come in stripped-down, geared-up versions—more powerful motors and improved aerodynamic configurations. Prior to the PRR demonstration project late next year, the cars will be tested on PRR track between Trenton and New Brunswick at speeds up to 150 mph. Commerce will shortly award another contract for gas-turbine powered cars for a similar demonstration project on New Haven trackage between Boston and Providence.

The Erie Lackawanna bounces back to black

It's been a long hard pull, but after seven straight years of deficit, Erie Lackawanna has finally made it out of the red ink column. Chairman William White confirmed last week that the road will finish the year with a net profit. Figures for first three quarters showed a net just under $500,000, and barring the unforeseen, fourth quarter figures should surpass that level. Says White: "In 1963 we set a goal of being in the black in 1965, even though we were facing considerably higher employment costs. While it is encouraging to have turned the corner, it should be realized that a profit of only a few million dollars out of gross revenues in excess of $225 million makes it apparent that our job is not finished."

MONDAY MORNING REPORT

Computers begin to speed rail reformation by R&D

Railroad research, long underestimated by industry friend and foe alike, is in for some unprecedented emphasis. Strange though it is to anyone familiar with the great changes that have been made in virtually every aspect of railroad operations in the past decade or so, industry research and development has not been generally understood or recognized. Unit trains, microwave systems, piggyback, rolling stock, locomotives, CTC systems and many other such systems or hardware have already come from the industry's continuing R&D effort. Now, even greater changes are coming. And they're coming quicker because the industry's considerable computer capability is being used with more skill and dexterity by the industry's R&D crowd.

First things first

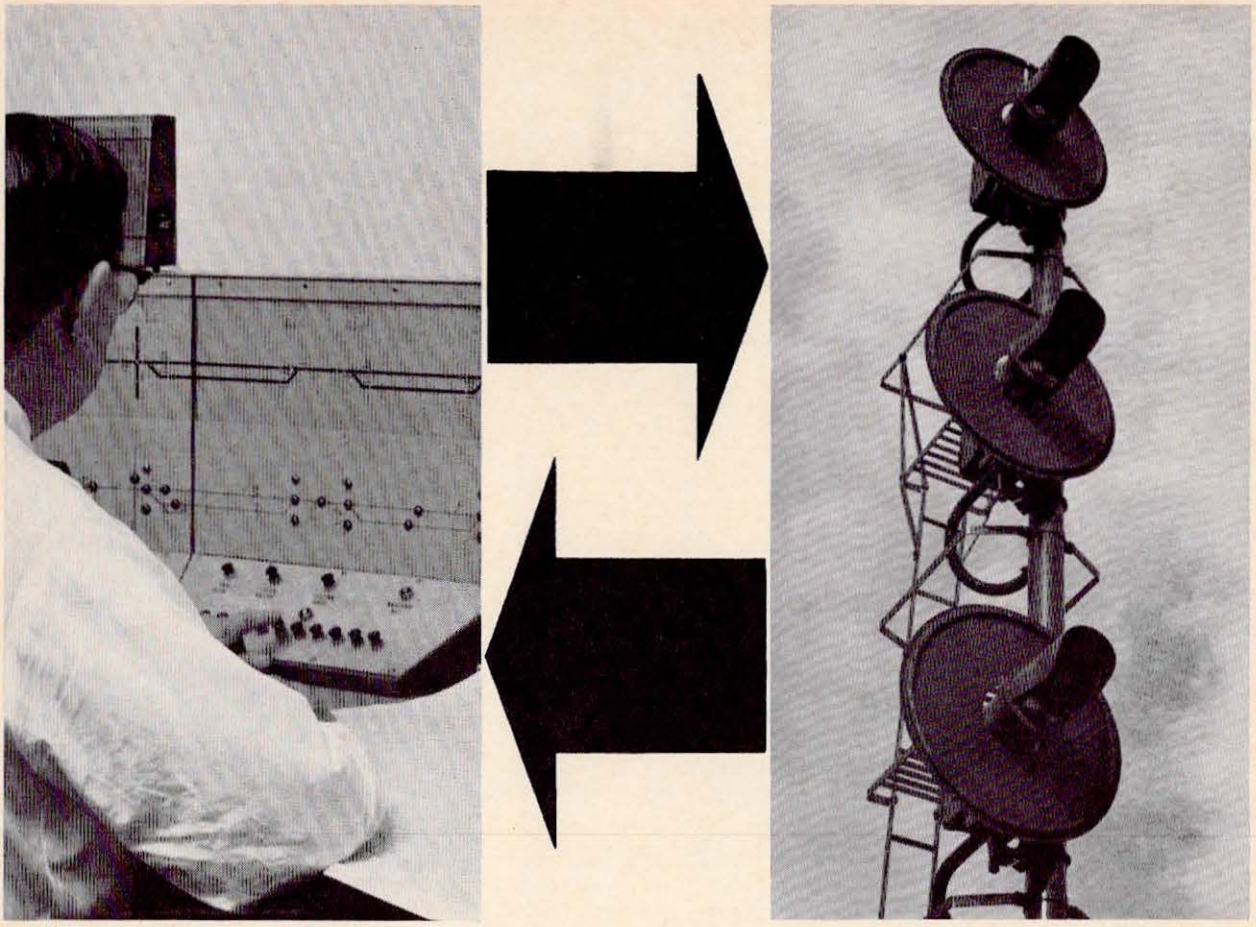
Unlike many other industries, where computers were used for R&D before they were used for operations, railroads substantially computerized paperwork and embarked upon the task of computerizing control of operations before any significant use of the machines was made in industry R&D. The industry's unique burden of paperwork and the even more pressing need for extracting a workable synthesis from this paperwork blizzard for purposes of management control of operations and commercial strategy—kept the R&D crowd out of computer rooms until quite recently. Nowadays, however, some R&D projects are getting high priority on industry computer time.

What kind of questions are the R&D men asking?

As example, a Southeastern road's computer helped prove that horsepower on four axles is not the same as it is on six axles. It was an answer that will help answer another question: "What kind of locomotives should we use?" Computers are probing, comparing and analyzing rate structures for specific commodities, so that carrier marketing moves can maximize rail advantage in the fight for the shippers' affections—and tonnage. Laser beams, power cells, fluid transistors and other devices are examples of scientific fallout that industry R&D men are attempting to fit into railroad operation. Traffic, marketing and rate experts are already deep in R&D aimed at tariff retrieval simplification and the elimination of needless complexity in the rate structure itself. Management people are getting more expert at asking questions of the computer-oriented R&D people: How many and what kind of cars should we buy? How will increased wheel loads affect our economic totality—beyond the obvious additional wear and tear on rail and bridges? What costs do we incur because we do not have automatic car identification?

Computers won't cure all that hinders innovation

The pace of R&D on the rail scene has long been governed by a wide assortment of pressures. Carriers have never been able to make full use of knowledge and hardware already developed. Regulatory barriers, labor contracts, shipper technology, and competitive pressure have sometimes prevented proper exploiting of R&D output. These factors, in combination with the shortage of risk capital with which the industry could afford to bet on change, have traditionally inhibited innovation. But the R&D equations are beginning to change. Competitive successes are producing some cash that can be bet on the future. Regulatory and sociological shifts are in the air that could radically alter the industry's ability to change. Innovators' capability for sketching in the details of the super railroads that have to be built are being enormously expanded by the computers being made available to them. An increased rate of reformation by research looks like a good bet for railroads in time to come.



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1965: A tough act to follow

All kinds of railroad performance records went by the boards this year, and next year could be a repeat of the same road show.

When you can look back on a year of new traffic records, new performance records, of all kinds—and even the best net income in close to a decade—what do you do for an encore? If you're part of the railroad industry, you practice for an even better show next year.

A few roads didn't approach the 1965 holiday season with much good cheer—more than a dozen Class I companies probably aren't going to earn fixed charges this year—but for the industry as a whole, '65 performance justifies that certain feeling of satisfaction. And '66, right now, promises even better things.

● **The 1965 story.** Here's the record on the year that's drawing to a close:

— Operating revenues are topping $10 billion for the first time since 1957.

—Net income, now estimated at about $775 million, is the best since the $876 million recorded in 1956.

— Revenue ton miles, if they miss hitting 700 billion, won't miss by much.

— Piggyback chalked up its first million carload year; and the railroad resurgence in new automobile traffic (which started with piggyback and then really bloomed with multi-rack cars) pushed the industry's share of new-car movements close to 50% of the market.

Over all, 1965 is going to be a hard act to follow. But top railroad men think it can be done. They are confident the industry can do the job—and they're hopeful that equality-of-treatment transportation legislation will get a strong push in the 1966 session of Congress, thus putting an even more solid base under the railroad boom.

● **Now, on to '66.** So the railroads are ringing out the old year—but the bells aren't really ringing for '66. Here's a sampling of the opinions that are making the rounds:

New York Central's business was on the upswing in 1965 and, says President Alfred E. Perlman, it "should improve further during '66."

Chesapeake & Ohio-Baltimore & Ohio had a 5% to 10% increase in ton miles and revenues this year and, President G. S. DeVine notes, "since all economic indicators point to a continuation of a high level of business activity in 1966, C&O-B&O expect to see continued improvement in gross traffic volume." C&O-B&O, incidentally, will be one of the industry's leaders in capital improvement spending again in '66, with expenditures of $175 million now programmed.

Western roads tend to share the optimism. Milwaukee Road President William J. Quinn says his company "expects to experience a continuation of the soundly established durable rate of growth and improvement shown in recent years. This improvement is expected to be evident in traffic volume, industrial development activity, operational advances, and in a material increase in net results for 1966, compared with both 1964 and 1965."

● **'Net income up, but . . .'** Missouri Pacific President Downing B. Jenks also forecasts increases in carloadings and revenues—and in net income "on the basis of generally accepted accounting principles." But, he adds, net income on an ICC reporting basis "is expected to be somewhat lower . . . due to changes in guideline rules which will narrow the margin between depreciation taken for ICC reporting purposes and tax purposes."

The consensus is a strong one. Frisco President Jack E. Gilliland calls the '66 outlook "generally favorable." John W. Smith, Seaboard Air Line president, thinks results in the new year "will be equally as favorable as those of 1965 and very likely somewhat better." And Reading President C. E. Bertrand, noting an improved position for his road this year, says he's "looking forward to a continuation of this trend in 1966."

● **No worry-free year.** Consensus it may be—but it carries with it a few noteworthy qualifying comments. Illinois Central President Wayne A. Johnston, for example, says the "whole panorama of railroading showed improvement during 1965, and the outlook for 1966 suggests even greater revenue and earnings, [but] the railroad industry must remain constantly on its toes to meet the never ending challenge of increased costs."

J. P. Hiltz, Jr., president of Delaware & Hudson, is even more specific. He foresees another good year in 1966, with traffic and revenues at about the same level as in '65—but "expenses in 1966 . . . unless subjected to stringent control, will materially exceed those of 1965 because of higher wages coupled with hamstringing labor agreements which limit the measures which can be taken to overcome them." Hiltz also fears "higher material prices which will most certainly accrue despite governmental bulldozing of basic industry about price increases."

● **The goals and the problems.** Equal concern is expressed by a number of presidents in considering legislative possibilities—on grounds that the industry needs equal-opportunity policy and law, and that the benefits of railroad improvements won't be fully felt by the public so long as "excessive and discriminatory regulation" is in force.

By and large, and in virtually every area, however, there seems to be a strong feeling that the goals are realistic and that the problems can be solved. If the spirit stays strong, the economy stays healthy, and the government follows through with equitable treatment of transportation modes, then 1966 could be a most worthy successor to '65. Based on the forecasts coming out now, most roads are anticipating just that. ■

WATCHING WASHINGTON WITH WALTER TAFT

TAFT

• **THE ICC'S CHAIRMAN** for 1966 will be Commissioner John W. Bush. He will move up from the vice-chairmanship which he has held this year under Chairman Charles A. Webb. Webb will remain a member of the Commission. He has been reappointed by President Johnson and confirmed by the Senate for a new seven-year term ending Dec. 31, 1972.

Bush, 56, was Ohio's director of commerce when he came to the Commission in 1961. He was appointed by the late President Kennedy to serve the remainder of an unexpired term. President Johnson reappointed him for his present term which ends Dec. 31, 1971. Bush was a member of the Ohio delegation to the 1964 Democratic convention which nominated the President. His wife, Dorothy V. Bush, is secretary of the Democratic National Committee.

THE NEW VICE-CHAIRMAN will be Commissioner William H. Tucker, a 42-year-old native of Massachusetts. Like Bush, he was appointed by the late President Kennedy and came to the Commission in 1961, getting a full term at that time. It expires Dec. 31, 1967.

WEBB'S VALEDICTORY as chairman was part of the address he delivered last month at the annual meeting of the National Industrial Traffic League. He senses, he said, that the country "has come to one of those significant crossroads in the history of regulation." But he is confident that the Commission in 1965 "geared itself, physically and mentally, for the transportation challenges that lie ahead."

THE RETIRING CHAIRMAN there had in mind the realignment of Commission bureaus and offices which was effected this year. Most important feature of the revamp was the consolidation of three formal proceedings bureaus (Operating Rights, Rates, and Practices) into an Office of Proceedings. Remaining bureaus are Accounts, Enforcement, Operations and Compliance, Railroad Safety and Service, Economics and Traffic.

THE ANNUAL ROTATION PLAN is not the best method of selecting a Commission chairman, Webb said in another speech during his chairmanship. He thinks the Commission's needs for "strong and continuous leadership" and "sound management" can best be filled by designation of the chairman by the President.

THE "BEST ANTIDOTE" for fears of that had been prescribed previously by Webb. His prescription is to recall that the late Commissioner Joseph B. Eastman, "who consistently opposed Executive interference and thereby ran the risk of not being reappointed, nevertheless urged that the President be authorized to designate the chairman of the Commission." This Eastman view was expressed in a 1935 report by the late Commissioner in his other role of Federal Coordinator of Transportation.

THERE IS EVIDENCE that Eastman might have changed his mind in the light of his subsequent experience with the late President Roosevelt's take-over proclivity. This has been noted by Howard Hosmer, retired ICC examiner who was one of Eastman's closest associates. Writing about the late Commissioner in last summer's issue of The Administrative Law Review, Hosmer, too, recalled the 1935 report, but he went on to say: "His colleagues at the ICC disagreed with that view, which was actually tentative on his part. Some years later, according to the recollections of reliable people who knew him well, he changed his mind about this question completely. Such a result was quite likely in view of his later experience."

ERPC states its views on commuters

Do railroads have the obligation to subsidize the commuter? Not so, says the Eastern Railroad Presidents Conference.

The ERPC, composed of presidents of 29 railroads in the East, made its position clear in a statement released last week by New York Central President Alfred E. Perlman. The Eastern roads agree with "most objective transportation experts" that:

— Rail commuter service in urban areas is a public service which must be preserved and improved.

— The railroads which have subsidized commuters and their communities for many years by providing service at mounting losses no longer are able to underwrite the losses, and should not be expected to do so.

— Rail commuter service today is clearly a public responsibility which must be assumed by the public through appropriate governmental action.

— Increasing deficits from passenger operations have inhibited the Eastern railroads' ability to improve equipment and facilities to better serve the public. Just as the building of highways and airports has been accepted as a public obligation, so should the financial burden of mass rail transport.

• **How bad is it?** In separate statements, two heads of Eastern roads indicated just how dark the picture is. Jersey Central President Perry M. Shoemaker reported that even with present tax relief measures and state service contracts, losses this year would come to $6.3 million.

As for Erie Lackawanna, Chairman William White announced that "shortly after the first of the year, E-L will petition for authority to discontinue its suburban service so as to be relieved of staggering losses that now exceed $10 million a year."

The New Haven sees one way out of its own dilemma—drop all passenger service. In ICC hearings now going on, NH officers have testified that eliminating passenger service in 1964 would have cut losses by $10.3 million. ■

Two-in-one

The next two issues of Railway Age will be combined into a single issue, dated Jan. 3/10. It will be mailed Jan. 7

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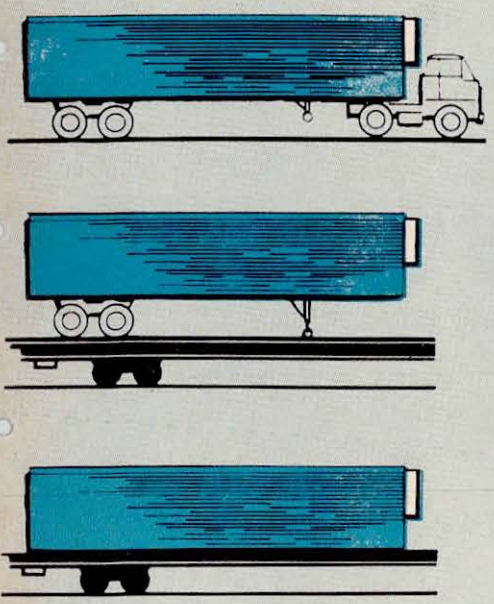

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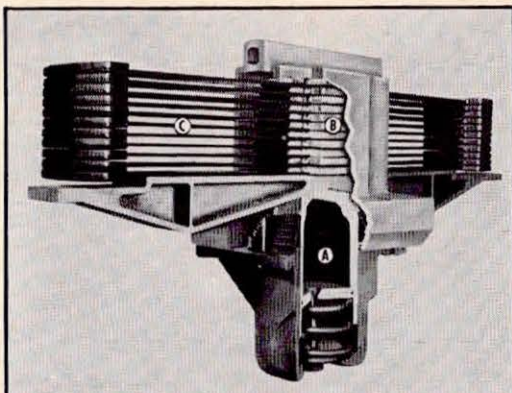

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THRALL

will produce in excess of 3,000 cars

(including all types of special freight car units)

in 1965

we at Thrall wish to thank our railroad customers and our suppliers for their help and cooperation which made this possible

THRALL CAR MANUFACTURING COMPANY, 2602 Wallace Street, Chicago Heights, Ill. 60412

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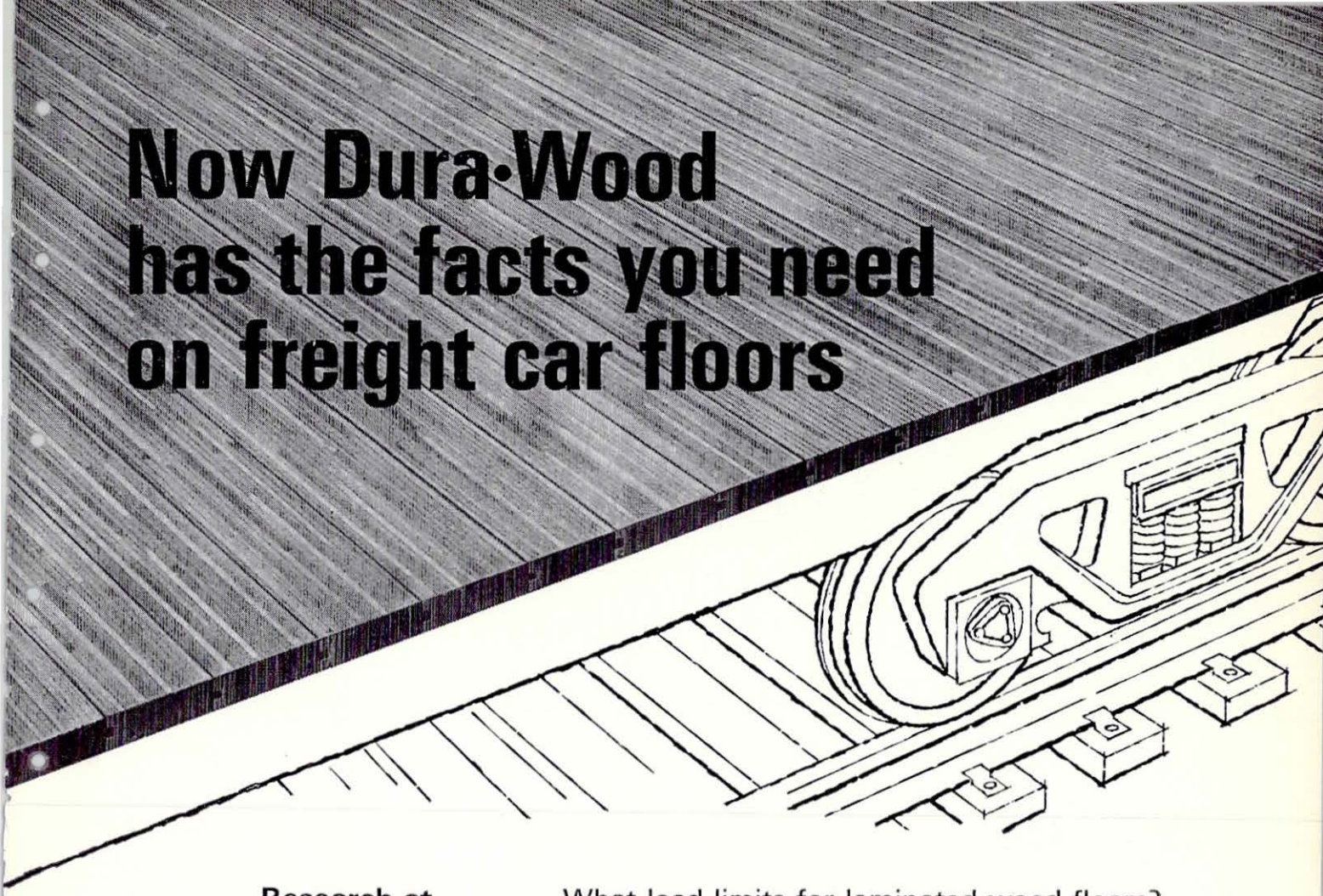
Now Dura·Wood has the facts you need on freight car floors



Research at Lehigh University produces long-sought answers to flooring questions

What load limits for laminated wood floors?
How thick a floor for what weights?
What type of underframing?
What spacing for underframe components?

For years there has been a "knowledge gap" on the ultimate performance of laminated wood decking in freight cars. Now new facts are available. The gap has been filled by definitive research in the engineering laboratory of a leading university.

Wheel loads up to 82,500 pounds—Dura-Wood strength surpassed even the most optimistic estimates. In *actual* tests (not just mathematical calculations), Dura-Wood supported up to 82,500 pounds* in lift truck wheel loads—far more than normal 60,000 to 70,000-pound axle load maximums. These tests were among the most comprehensive ever made on laminated wood flooring for freight cars—the first using a simulated boxcar section with standard underframing.

Tests conformed to A.A.R. design—Construction of test frames and decking conformed to Freight Car Design recommended by the Association of American Railroads. Tests were observed by representatives of American Car & Foundry Division, ACF Industries, Incorporated, and Pullman-Standard.

**Ultimate wheel load breaking point of 2-3/8" Dura-Wood with 3"I 7.5 stringers.*

Send coupon for test summary

Bruce Dura·Wood

LAMINATED EDGE-GRAIN FREIGHT CAR FLOORING

BRUCE®

A product of E. L. Bruce Co.
World's largest maker of hardwood floors

E. L. Bruce Co.
1666 Thomas St., Memphis, Tenn. 38107

Please send summary of test results on Dura-Wood freight car decking.

Name_____

Company_____

Address_____

RELIABILITY

Possibly no other sporting dog in the world looks so much the part as the Pointer. To see a well bred, field-trained Pointer work is to watch forty or fifty pounds of four-legged speed, stamina, style, and drive fulfilling its mission—finding birds. Inheriting a powerful body and a superb scenting ability from ancestors tracing back to the fifteenth century, the modern Pointer combines all the characteristics demanded in a sporting dog by field trial men and serious gunners. Though the Pointer possesses a good disposition, he is said to lack the affectionate and playful nature of the setters. Nevertheless, as countless field trial spectators and shooters can testify, when the going is tough and the birds are few, there is no better, more reliable dog than the Pointer.

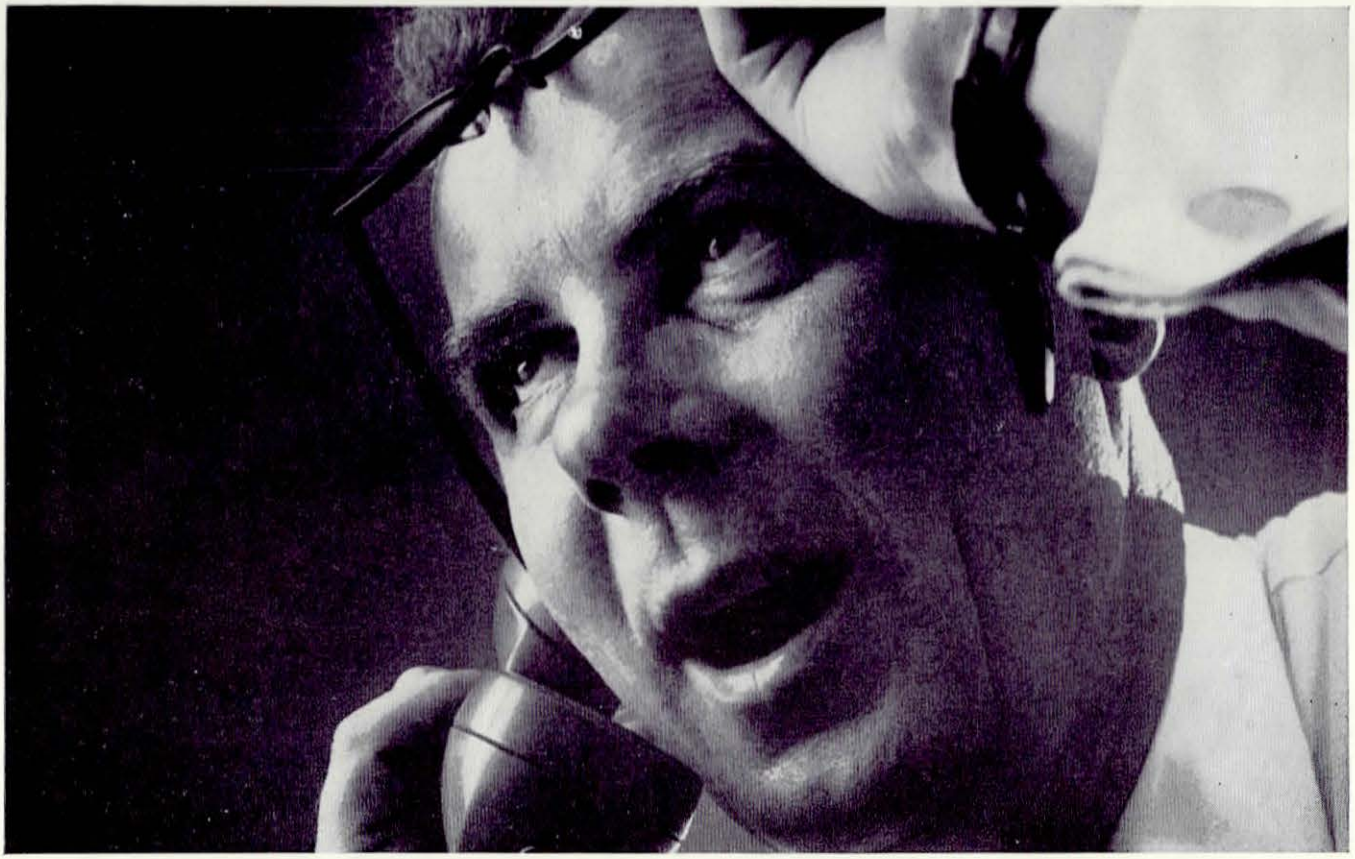
Photograph by Walter Chandoha

RELIABILITY . . . The word has a special meaning for railroad men. Where reliability in the typical piece of industrial equipment may be highly desirable, in railroad equipment it is absolutely essential. Essential because of the demands of long, tough hours of mile-after-mile freight movement. Essential because only reliable, maintenance-free equipment provides steady revenue for shippers and railroads.

Complete reliability was the paramount consideration in the design and development of Keystone SHOCK CONTROL Cushioning Units. That's why railroad experience over millions of *revenue miles* shows Keystone SHOCK CONTROL Cushioning Systems unmatched for rugged strength and trouble-free performance. When you think of car and lading protection, think of Keystone SHOCK CONTROL Cushioning Systems. You can depend on them to help keep your cars rolling in revenue over the long haul. May we send you complete details?

Keystone Railway Equipment Co. 310 S. Michigan Ave., Chicago, Illinois 60604

"Sure, Seaboard has changed schedules before."

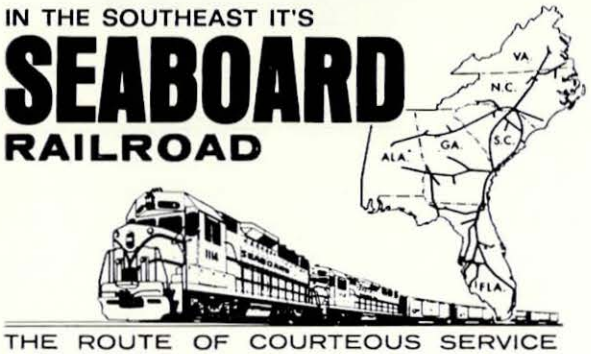


Your local Seaboard representative is flexible. You won't hear him say "It's never been done" but rather, "Let's try it!" His recommendations for serving shippers better—even changing freight schedules to meet a particular situation—are considered and acted upon promptly by a management which respects his experienced judgment.

Get to know him better. He's a mighty good man to work with on your shipments to and from the Southeast. And he wants to prove to you it pays to "Seaboard it"—every time.

IN THE SOUTHEAST IT'S

SEABOARD
RAILROAD



THE ROUTE OF COURTEOUS SERVICE

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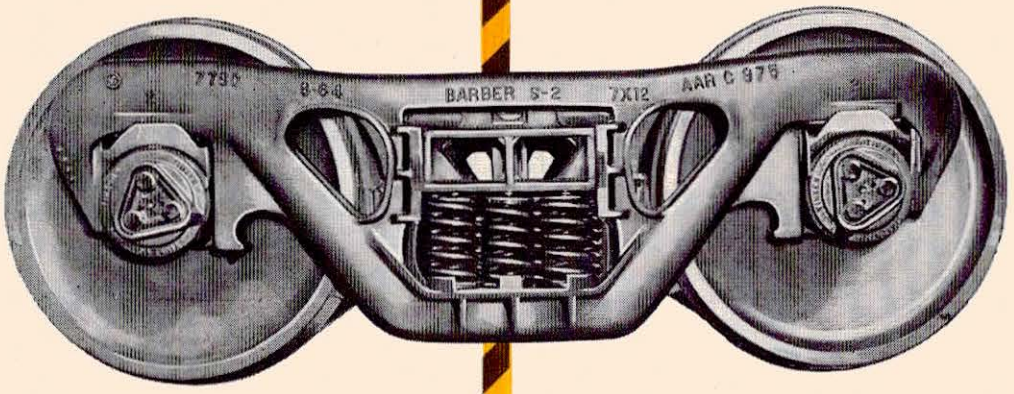
◀ Circle 11 on reader service card

SAFETY

THROUGH STRENGTH!

Scullin engineers believe that freight car truck castings should always be designed to provide an extra margin of safety in operation. Weight should not be sacrificed at the risk of weakness in any part of the casting. With an eye to the future as well as the present, Scullin freight car truck side frames and bolsters are designed to meet the ever increasing demand for greater loads, higher speeds and greater car utilization.

Specify Scullin for longer, trouble-free service. **Pound for pound Scullin steel castings have no peer in strength.**



Now available, 125 ton Barber 4-wheel Truck.

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A Division of Universal Marion Corporation

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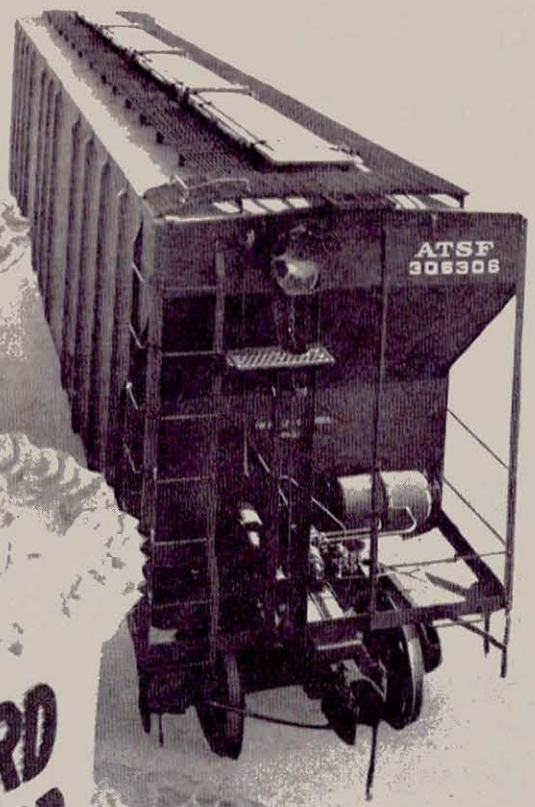
10,000TH

TROUGH HATCH EQUIPPED

PULLMAN-STANDARD COVERED HOPPER CAR



GOOD CAUSE FOR CELEBRATION

You bet it is. The first trough hatch equipped covered hopper was introduced in December 1962 by Pullman-Standard. Now, just three short years later, the 10,000th P-S trough hatch covered hopper is being delivered. Good cause for celebration? Yes, and it's just one more indication of Pullman-Standard's ability to innovate devices beneficial to railroads and their customers.

Incidentally, P-S No. 10,000 has become ATSF No. 306306, joining the 9,999 other P-S trough hatch covered hoppers in dry bulk commodity service. This makes a total of more than 33,000 modern P-S covered hoppers currently at work on the nation's rail network.

For your railroad, your shippers, check into the advantages provided by the trough hatch covered hopper as well as other innovations developed by Pullman-Standard, the world's leading freight car builder—where continuous research helps set the pace for rail progress.

PULLMAN-STANDARD

a Division of Pullman Incorporated
200 South Michigan Avenue, Chicago, Illinois 60604
New York • Pittsburgh • Birmingham • Washington, D. C.

HERMAN H, PEVLER, PRESIDENT
Norfolk & Western Railway

"In today's world of swift and drastic changes, it is imperative that industry be kept abreast of current developments in its particular field. The weekly publication of Railway Age has provided this type of news to the railroad industry and has done it quickly and in a clear and concise manner.

"We on the Norfolk and Western Railway find it particularly useful in exploring new methods and procedures to enable us to continue to furnish modern and efficient service to our patrons."

Herman H. Pevler

All appliances designed and engineered by WINE . . . manufactured in the U.S.A. and Canada by UNITCAST.
THREE SURE WAYS TO STOP LADING LOSS

Patented

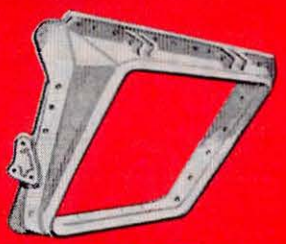
Over 115 Domestic and Foreign Railroads prove superiority of WINE cast steel hopper frames, locks, hinges!

Wine-equipped hopper cars *consistently* deliver *all* the payload.

The structurally sound Frames, Locks and Hinges work as a team to provide total 3-way protection. And they keep on protecting lading, earning profit, long after other appliances have worn out.

No matter what you pay, Wine appliances are *the finest any money can buy!* Engineering and purchasing management can rely 100% on Wine for unmatched product performance *plus* competitive pricing and reliable delivery schedules.

To save purchasing dollars, to stop lading loss and to practically end maintenance upkeep, START SPECIFYING WINE . . . a start-to-finish appliance designer-manufacturer. Call your local Wine sales representative or write the factory today for complete details, including product specifications.



WINE FRAMES Rigid, non-distorting one-piece precision steel castings that fit tight for life.

WINE LOCKS Fully adjustable for easy installation. Made to operate easier, last for life of car and then some!

WINE HINGES Single steel castings with hinge lugs built into frame for permanent alignment, bind-free operation.

PRODUCER OF OVER FIFTEEN *THOUGHTFULLY ENGINEERED* QUALITY APPLIANCES *PLUS* CUSTOM CASTINGS BY UNITCAST

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DIVISION OF UNITCAST CORPORATION • TOLEDO, OHIO 43609

Canadian Manufacturing Division: *Canadian Unitcast, Ltd.*, Sherbrooke

Sales and Service: *The Holden Co., Ltd.*, 614 St. James St., W., Montreal

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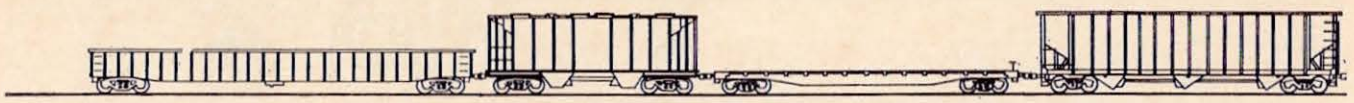
New Flats "Baby" Key Cargo

This is the new, 77-ton, cushioned flat shippers and railroaders have been talking about. It's gentle . . . handles key cargoes like transformers and machine tools beautifully and is tough enough for hard, work-a-day service. The car is 53'6" long and equipped with a new, super-cushioning system. This system, free of hydraulic parts and castings, is virtually maintenance-free. If you were beginning to think all flats were alike, a look at this one may change your mind. Information on this super-flat, which 'babies' key cargo, is as close as your telephone. Check it out today.

GREENVILLE

STEEL CAR COMPANY
Subsidiary of Pittsburgh Forgings Company
GREENVILLE, PENNSYLVANIA



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ATLANTIC COAST LINE · VIRGINIA-NORTH CAROLINA-SOUTH CAROLINA-GEORGIA-FLORIDA-ALABAMA

CENTRALIZES HOT BOX CONTROL AT CTC CONSOLE

SERVOMASTER®

DATA STORAGE AND COMMAND SYSTEM

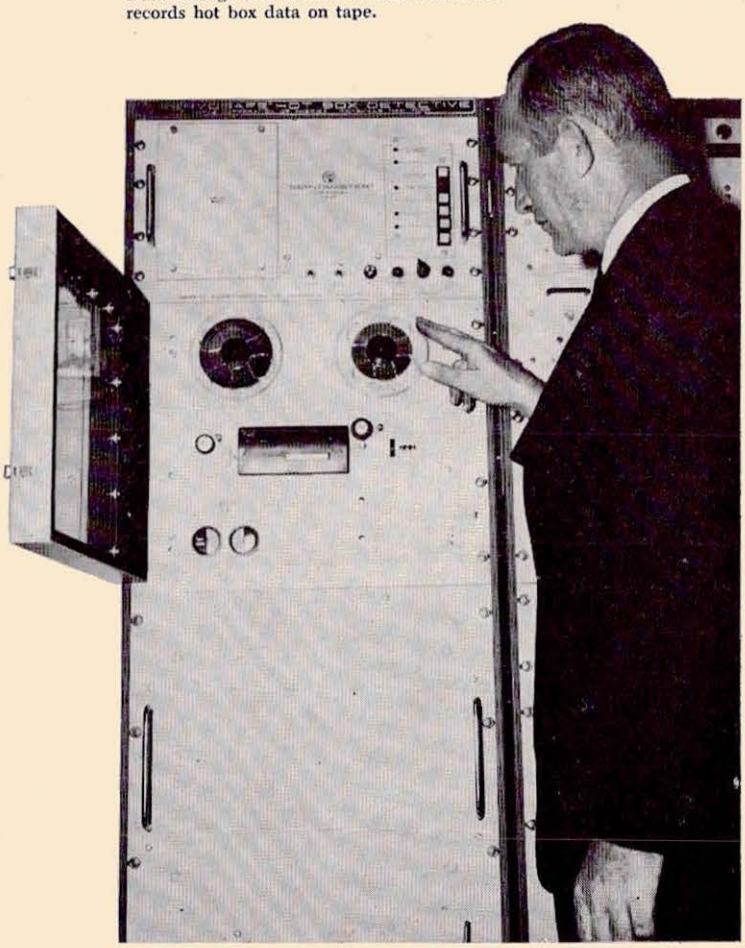
Servo salutes the ACL! Progressive ACL management has scored another important first. Protected by a strategic network of sensitive infrared SERVOSAFE® Hot Box Detectives* since early 1959, the Atlantic Coast Line is first to add the latest major breakthrough—the amazing SERVOMASTER® Data Storage and Command System.

The new Servomaster system permits the CTC dispatcher to supervise, monitor, and control a network of remote unattended Hot Box Detective* installations. An alarm lamp on the CTC console immediately alerts the dispatcher to any detected hot boxes. Trains can thus be stopped in a manner causing least disruption of traffic.

Train information is stored on magnetic *tape* at each Detective site. A *single* carrier frequency feeds in information from all detectors. Only *one* graphic chart recorder is required in the CTC dispatcher's office to display hot box data reported by the entire network.

In the words of ACL President W. Thomas Rice: "Reducing the cost of the hot box is like adding extra revenue."

Chief Engineer Communication and Signaling R. D. Liggett inspects new SERVOMASTER® Data Storage and Command unit which now records hot box data on tape.



SERVO®

RAILROAD PRODUCTS DIVISION **111 New South Road • Hicksville, L. I., N.Y.**

SERVO CORPORATION OF AMERICA

*Protected under one or more of the following U.S. Patent Nos.: 2,880,309; 2,963,575; 3,028,484; 3,095,171; 3,108,772; 3,108,773. Canadian Patent Nos.: 643,038; 643,091; 690,506; 690,907. Other U.S. and foreign patents pending.

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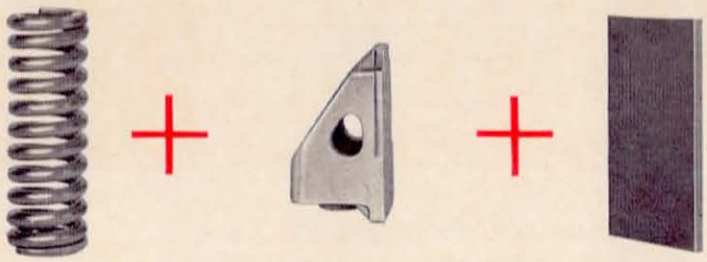
SIMPLICITY

of design gives you important advantages all the way down the line



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STABILIZED TRUCKS

SUPERIOR PERFORMANCE

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LOW COST MAINTENANCE

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RESEARCH
RESULTS

2960

BARBER Standard CAR TRUCK COMPANY
CHICAGO • PHILADELPHIA • MONTREAL

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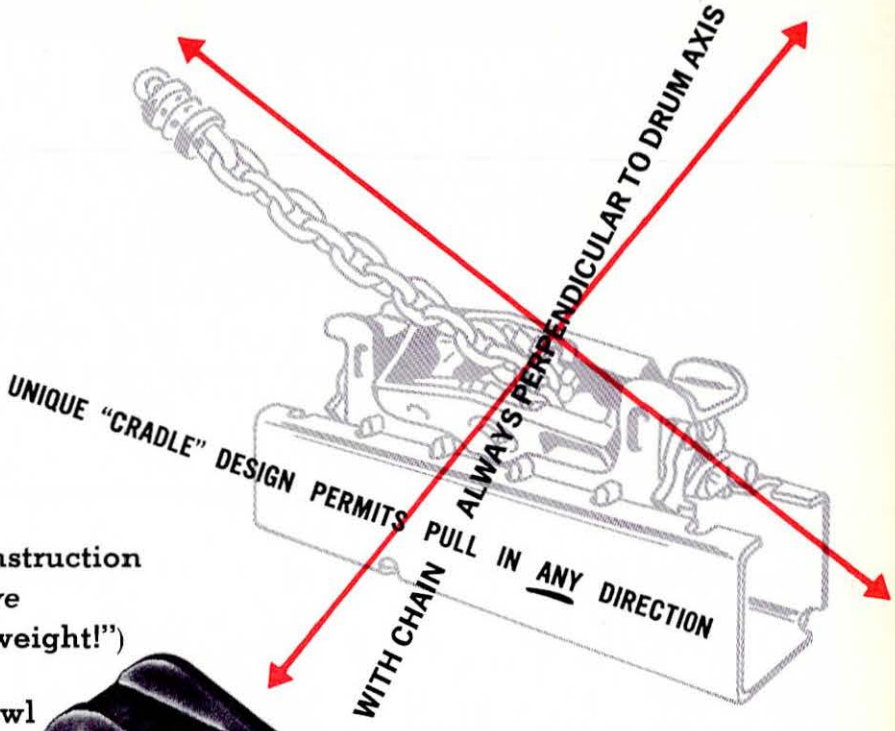
Circle 19 on reader service card ►

There is nothing new about a combination channel, winch & chain tie-down.

Brandon

the originator of such systems, has been supplying them for years

but . . .

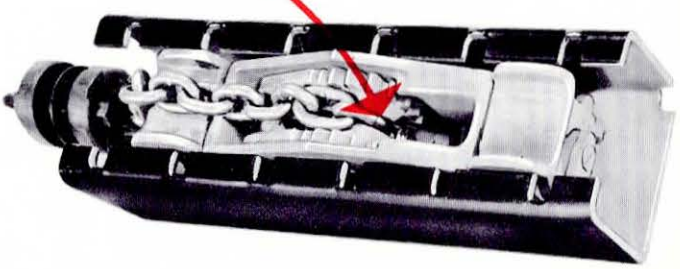


1 Double trunnion beam type construction for *greater* strength and *positive* reliability. (This is *not* a "lightweight!")

2 One piece forged, four tooth pawl insures equal pressure on each ratchet tooth.

3 Chain is held in drum by integral chain pocket and pull is against a shoulder in the cast steel drum with *no shear stress on a pin,* bolt or rivet.

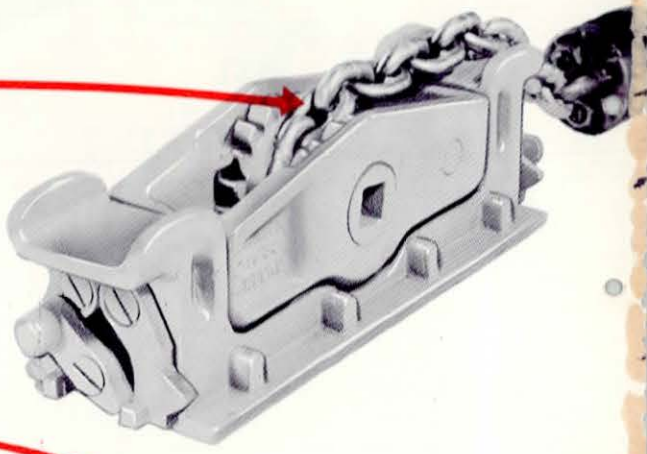
4 Winch can be positioned in any location *inboard* or *outboard* along channels including bolster area or *even directly over stake pockets.*



Additional Advantages of the Brandon Heavy Duty Universal Winch

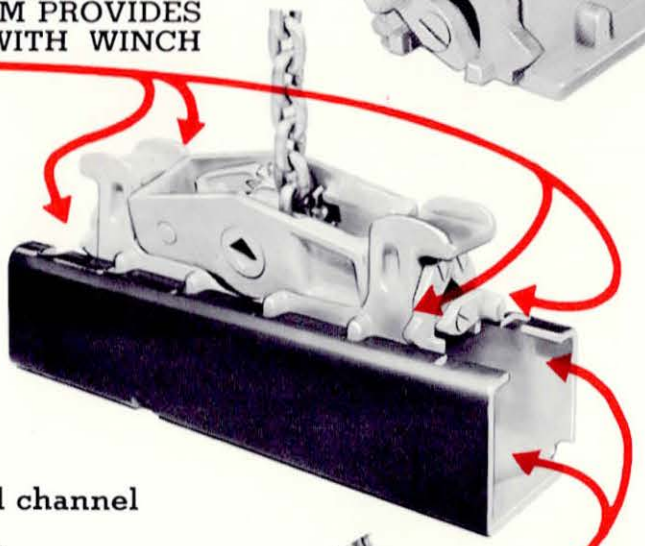
5 Same size channel used at both inboard and outboard locations.

6 A full 9" wrap of chain around drum allows adequate take-up and easy tie-down.



7 Winches *cannot* be removed from outboard channel at stake pocket locations.

UNIQUE LOCKING SYSTEM PROVIDES FOUR-POINT SUPPORT WITH WINCH IN RAISED POSITION.



8 FULL lug engagement in channel notches under all impact conditions.

HEAVY 1/4" LID, HINGE PIN, and "U" type reinforcement at stake pocket opening supplied as integral part of channel. NO LOOSE PARTS TO COMPLICATE CAR BUILDERS' APPLICATION.

9 Bottom surface of outboard channel is flush over entire length, *even over stake pockets.*

0 Open bottom allows self-cleaning; facilitates operation under winter conditions.

- **Elasticity** in chain assembly facilitates engagement of next notch in winch ratchet while loading.
- **Double "U" bolt** construction permits dismantling for chain replacement. No eye bolt connecting link required.
- **Visible indication** of chain tension.
- **Eases** releasing ratchet at unloading.
- **Keeps chain** taut after impacts.

11 The BRANDON Compression Unit is patented. More than one hundred thousand in service with completely satisfactory results and a history of no failures.

Brandon

EQUIPMENT COMPANY, INC.

332 South Michigan Avenue · Chicago, Illinois 60604

New England's future geared to transport?

New England's stake in a national transportation policy is as critical as taxation or other issues of immediate local impact, a National Transportation Policy Seminar in Boston has been told.

ICC Commissioner William H. Tucker, acting as moderator for the recent one-day session, sponsored by the Boston Chamber of Commerce, said that President Johnson's forthcoming transportation recommendations will be aimed at meeting "the awesome challenge of a national need for comprehensive, farsighted transportation policies." In turn, these policies will have an effect on a field that is intimately linked to the fundamental well-being of New England, it was pointed out.

Tucker said much work is going into the shaping of Administration policies to serve as guidelines, "although we do not have details." He said the President's recommendations will represent the culmination of efforts which started with President Kennedy's transportation messages of 1962 and 1963.

• **Growing a healthy plant.** U. S. Sen. Edward M. Kennedy (D-Mass), said that the 1962 Transportation message defined the role of public policy in guiding a balanced national transportation service. Its role: to "provide a consistent and comprehensive framework of equal competitive opportunity." He cautioned that New England couldn't settle for less. "If New England is to grow, it must have a healthy, varied freight and transportation plant. This plant must offer efficient, economical and dependable service, both within New England, and between New England and the nation's other markets and producing centers. It must at least meet the standards of our national system and be fully integrated with that system."

Kennedy again called for inclusion of the New Haven in the Penn-Central merger plans, and Boston & Maine within the Norfolk & Western. He said Congress can insure that major eastern lines are not penalized for including New England lines in their mergers. When Congress resumes he will introduce legislation to make acquisition of the smaller, weaker lines more attractive to large and profitable lines by allowing net operating losses of the acquired lines to be used to a greater extent than now allowed.

Calling new techniques in railroading such as piggyback, high capacity covered hoppers and unit coal trains serving New England "the quiet revolution in the railroad industry," Wayne M. Hoffman, NYC's executive vice-president, predicted such a revolution would again make railroads a growth industry. The rate of growth would be predicated on the ability of railroads to absorb sudden declines in traffic such as New England's decline in heavy and medium manufacturing, availability of large amounts of capital, and the regulatory and legislative climates of the region in question.

• **Expanding REA Service.** Serving small and light industry now developing in New England will be the primary role of REA Express, Inc. according to its president, William B. Johnson. In the next ten years the New England states will gain one million population, he said, much in outlying areas calling for more direct small package service.

The trucking industry came to the seminar armed with impressive percentages of commodities handled in the territory by motor carriers. But aside from that, Edward Kiley of the American Trucking Associations was concerned with the financial plight of the New Haven and proposed solutions which "might solve nothing, and, instead create problems where none now exist." ATA's solution was to dust off the National Railroad Passenger Service Corp. plan which was adopted by the Doyle Group while making their study for the Senate Commerce Committee about five years ago. ■

LETTERS FROM READERS

P&LE passenger results explained

Pittsburgh, Pa.

To the Editor:

There is an apparent misreading of the P&LE passenger operations data in the Watching Washington column in the Aug. 30 issue of Railway Age.

The item states that while none of the "34 selected large railroads" reported a 1964 net from passenger operations, the P&LE did have a black figure of $256,538. While this figure does appear as a net railway operating income from passenger service in Account 300 of P&LE's 1964 Form A Report, this is the result of credits associated with passenger trackage and facility rights granted to another carrier.

Insofar as P&LE operations associated with passenger service are concerned, the operating revenues were $194,800, while the transportation rail line expense associated with this service amounted to $419,926, exceeding the revenues by $225,126. Accordingly our transportation expenses alone were $2.16 for each dollar of revenue in this service.

Harold H. McLean
Vice President and General Counsel
Pittsburgh & Lake Erie

Stimulating thinking

Minneapolis, Minn.

To the Editor:

I think Railway Age should be complimented on the interview of Dr. Cottrell. I have written a letter to the officers of our company suggesting that they read and think about Dr. Cottrell's comments. Our industry continues to suffer from too much inbred thought. We need to have our own thinking stimulated by people like Dr. Cottrell. In addition, I believe that the questions asked and the organization of the questions developed ideas and concepts that made the interview worthwhile.

I certainly would like to encourage Railway Age to take some leadership in injecting the thoughts of people like Dr. Cottrell into our industry's problems and solutions.

Leonard H. Murray
President
Soo Line

UP in car pool

Omaha, Nebraska

To the Editor:

It was with interest that I read your article on "Freight Car Pools", page 30 of your Nov. 29, 1965 issue.

There was mention of a number of railroads furnishing equipment for the pool accounts of both Procter and Gamble and Corn Products.

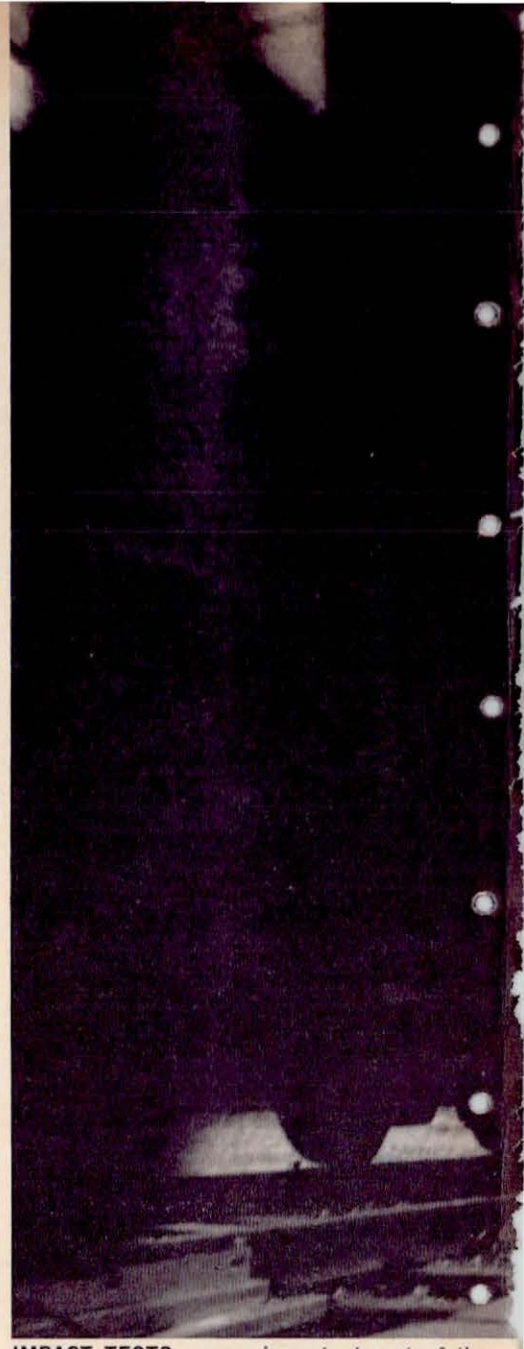
In neither case was the Union Pacific mentioned. As a matter of information, the Union Pacific has 5 compartmentizer DF cars and one airslide covered hopper assigned in the Corn Products pool.

D. F. Wengert
Vice President-Operation
Union Pacific

BATTLING L&D WITH BRAINS

Some big gains, but losses are still hefty

- **Railroads' L&D bill will probably top $145 million this year.**
- **But, say some experts, there is genuine hope for the future.**



IMPACT TESTS are an important part of the

The loss and damage story once had a simple plot. Switchmen were the villains. Shippers were innocent members of the cast, owners of the goods that the villains always tried to smash, chip, squash, bend or steal. Heroes were the L&D prevention forces. They fought off villains with posters. The posters always proclaimed that loss and damage to railroad shipments was against the rules.

The thrilling climax was getting a shipment into a receiver's dock without L&D. However, the industry's L&D bill climbed from $82 million at the end of World War II to more than $145 million this year.

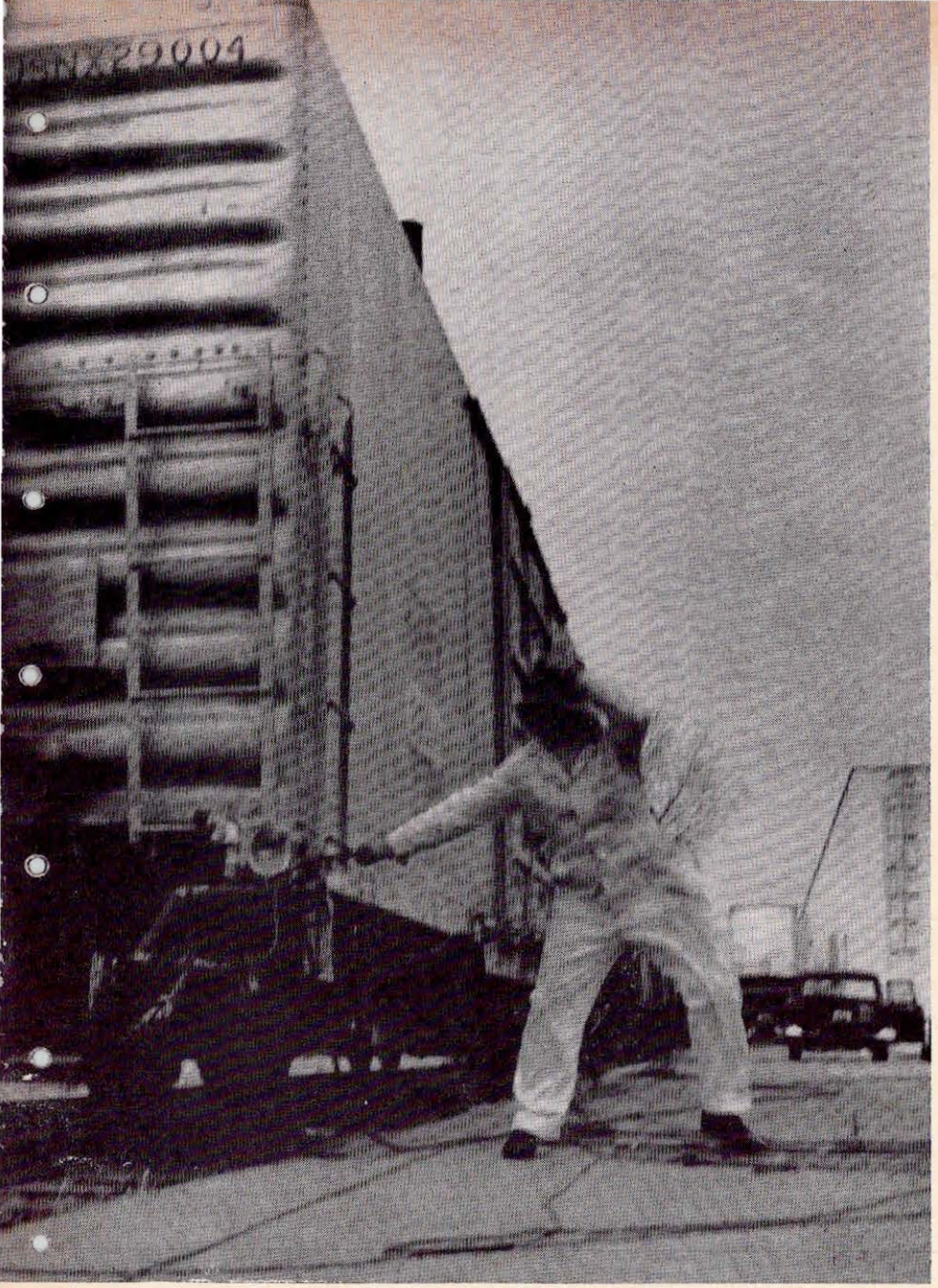
Of course, no claim officer or L&D prevention officer ever thought the L&D problem was that simple. Most knowledgeable railroad officers know just how complicated a problem L&D prevention is.

• **Everybody is involved.** Today, some of the best brains in the industry —and in the railway supply industry, too—are battling L&D. Contributing to the L&D prevention effort are railroad presidents and atomic-industry mathematicians, thousands of L&D-prevention experts, claim specialists, mechanical officers, supplier engineers, and even government research scientists.

Equipment has been transformed since World War II. Equipment engineers have a whole catalogue of devices available to them when they start designing a car aimed at minimizing L&D to particular commodities. But still the industry's L&D payout climbs. It will, say the experts, keep climbing—past this year's $145-million payout.

Intensive cooperative research and development aimed at controlling L&D has had high priority on railroads, among suppliers and in the shipping community in recent years. Has it been effective? The experts think so. It has, they say, prevented the L&D payout from being much higher. "With longer trains, higher speeds, bigger cars, much higher values of shipments and, in the past couple of years, more tonnage being handled, I think we're winning the L&D battle with brains," is the way one western railroad L&D man assesses the situation. "But, it's a heartbreaking battle," he adds, "when you have to watch the figure for payout climb year after year, even though you know that figure only tells part of the story."

• **Setbacks are frequent.** Men directly and indirectly involved in the



battle against loss and damage. Here, a U. S. Navy car is being put through the mill.

battle against L&D to shipments are accustomed to setbacks. Not only when the statisticians get through toting up the L&D bill—but from the ever-new list of things that can go wrong with a shipment.

Consider what happened to a major carrier in the Midwest a couple of weeks ago. A dispatch freight train was headed south when a casting inside a box car suddenly went through the car floor. A moment later 23 cars lay in the ditch alongside the track. Ten of them were automobile rack cars. They were loaded with 133 shiny new Oldsmobiles — big, air-conditioned Olds Toronados, 98's and other such expensive models headed for Texas. That road's L&D account will likely climb more than $450,000 as a result of claims, damage to equipment and right-of-way. The road has not fully established the causative sequence of events that were behind the derailment. It could very well have been caused by something as simple as a defective floor. Or something as elusive as an improper car furnished to the shipper of the casting. Or improper loading.

Or look at the L&D battle from another angle. A shipment of bagged sugar recently went out in a box car that had 37 nails protruding straight out of the car's walls. Torn bags generated a claim for several hundred dollars at destination. But, that wasn't all. The same car, with the same 37 nails still protruding, was again loaded with bagged lading and sent out. Thousands of such cases, repeated over and over again, are at the heart of the L&D problem.

• **Small causes important.** Which of the two cases cost more? In the long run, cases like the latter are far more costly than the occasional claim cost of a derailment or wreck. The wreck's cause and cure is the lifework of railroad mechanical forces, maintenance-of-way workers and operating men in general. Railroads spend enormous sums every year renovating and upgrading fixed plant for faster schedules. New York Central, for example, is spending $525,000 for track renovation between Anderson and Terre Haute, Ind., a line used by two fast NYC Flexi-Van trains.

But the nails protruding from a box car's walls (inconsequential though they may seem compared with the damaged Oldsmobiles) are typical of an entire catalogue of causes adding up to $150 million in L&D payout this year. Causes for L&D may be as exotic as generator failure on a reefer-full of artichokes for which a carrier had to pay $1,476 —or as prosaic as the lumber that spilled when a switchman sent a flat car down a ladder lead at too-high a speed. Results? They can be as cheap as the $1.28 claimed by a distributor for ten broken bottles of beer in a carload—or as expensive as a million dollars paid out for the lading of freight cars involved in a major wreck.

• **CN tackles newsprint.** But railroads and railroad suppliers are attacking the L&D problem all along this complicated front. This attack on the problem is, in itself, a major expense for the carriers. For example, it would be hard to estimate the cost, complexity and supplier involvement of a Canadian National project to find the best way to reduce damage to newsprint shipments.

A CN committee was set up in January 1960. A test program was outlined. It involved a car equipped with inflatable rubber dunnage bags, a car equipped with load dividers, a car equipped with cushion underframes and a standard box car. Nine test shipments were made with loading and unloading supervised by CN personnel from the road's technical research and development department and from CN's freight L&D prevention forces. A report on the tests was issued early in 1961.

The report concluded that "the use of cars equipped only with either cushion underframes or load dividers would not eliminate damage to newsprint" and that combinations of devices were best for reducing impact forces and dividing the load. The report also said: "Although inflatable rubber dunnage bags will not fully meet the requirements for complete lading protection, advantages of low first cost and suitability for use in existing box cars warrant the con-

FREIGHT LOSS AND DAMAGE, AND ITS RELATION TO CERTAIN SELECTED ITEMS, 1956 TO 1965

UNITED STATES CLASS I RAILROADS

Year	Loss & Damage Freight (A/C 418)	Net Income	Per Cent L&D of Net Income	Net Railway Operating Income	Per Cent L&D of Net Ry. Op. Inc.	Freight & Switching Revenue (A/Cs 101 & 110)	Per Cent L&D of Revenue	Revenue Ton-Miles (Thousands)	Loss & Damage per 1000 Ton-Miles (Cents)
1956	$102,477,433	$876,333,430	11.694	$1,068,245,689	9.593	$9,097,286,617	1.126	647,077,041	15.84
1957	111,421,929	737,430,947	15.109	922,333,564	12.080	9,079,040,846	1.227	618,193,517	18.02
1958	108,522,810	601,737,247	18.035	762,296,068	14.236	8,211,065,037	1.322	551,666,710	19.67
1959	108,185,653	577,719,089	18.726	747,676,597	14.470	8,459,161,944	1.279	575,528,773	18.80
1960	110,005,943	444,639,927	24.740	584,016,346	18.836	8,173,396,351	1.346	572,308,838	19.22
1961	112,432,301	382,443,781	29.398	537,771,182	20.907	7,884,508,772	1.426	563,360,761	19.96
1962	120,274,781	571,017,179	21.063	725,678,798	16.574	8,138,026,937	1.478	592,862,417	20.29
1963	131,924,454	651,637,422	20.245	805,658,373	16.375	8,294,586,878	1.590	621,737,176	21.22
1964	141,934,666	698,184,126	20.329	818,213,154	17.347	8,608,037,637	1.649	658,638,722	21.55
*1965	145,000,000	775,000,000	18.696	940,000,000	15.425	8,900,000,000	1.629	695,000,000	20.86

*1965 figures are estimates

tinuation of development work on its application to newsprint service."

• **Then, more tests.** On the basis of this test, CN set up another test to determine what cushioning is required to eliminate serious damage to newsprint shipments, the effectiveness of load dividers in cars equipped with special draft gears, and the effectiveness of inflatable rubber dunnage bags in newsprint service.

The second test car fleet consisted of 10 cars equipped with hydraulic draft gears, 10 cars equipped with inflatable rubber dunnage bags and 10 standard box cars. The same check of loading and unloading conditions was made.

• **New findings.** Test engineers K. Steel and J. T. Wilson, in mid-1963, reported, "The hydraulic draft gear used in the tests appears to eliminate almost all serious damage when a single floating unit load pattern is used. No other combination tested was found to be successful." They also concluded that the series-connected, high-capacity friction draft gears did not provide sufficient cushioning to reduce serious damage to an acceptable degree, that the use of load dividers in cars equipped with special draft gears "is not effective in reducing serious damage" and that serious damage in cars with both is greater "than in cars equipped with hydraulic draft gear without load dividers."

They noted that cars equipped with inflatable rubber dunnage bags did not reduce serious damage to an acceptable level. Steel and Wilson recommended that "controlled tests with cars equipped with hydraulic draft gears should be continued."

• **Test fleet increased.** And continue CN did, through all of 1964 and part of this year. Engineers Steel and Wilson were, at this stage, testing on a much larger scale. They had 200 cars in service under CN observation—100 cars equipped with hydraulic draft gears and 100 standard box cars.

For a year CN's research and development and L&D prevention forces kept tabs on the newsprint cars in test operation. The last series of tests confirmed the findings of CN's second series of tests. The larger sample indicated that cars equipped with hydraulic draft gears and loaded with newsprint rolls in a single floating unit (to provide, in effect, an interior cushioning force by reason of the unit's inertia and the unit's friction on the box car floor) were best for reducing serious damage to newsprint. "We found this kind of loading far superior to loading all the way up to car end walls," notes Steel.

• **So, what happened?** Results, by this time, were already showing in CN's equipment acquisitions for its newsprint service. To date, CN has 600 50-foot box cars equipped with hydraulic draft gears in its newsprint service. The fleet includes the 100 hydraulic draft-gear-equipped cars used in the last series of CN tests.

Everybody pitches in

Tests of this type require intensive cooperation and assistance from many people. CN's Steel and Wilson acknowledged the help of many people in their report. They cited the substantial assistance of newsprint manufacturers, newspaper publishers, supply companies, CN's sales department, CN's research and development section and the road's L&D prevention specialists. The CN experience indicates how hard it is to solve the L&D problem for just one commodity. There are thousands of commodities that figure in the industry's $150-million payout this year.

• **Is L&D R&D economic?** In view of the expense that a railroad has to incur to get the optimum answer for a particular L&D situation, at least one operating man has asked, "Is it worth it? Why not take your L&D payout as a legitimate operating expense? L&D may very well be a disease whose cure can bankrupt us?"

The answer, of course, is in what one thinks L&D payout amounts to. If the L&D cost to railroads is $150 million this year (or $17,123 every hour, around the clock, seven days a week, 365 days a year), then the operating officer quoted above could be quite right.

But railroad officers know the L&D payout is only the visible top of the L&D iceberg.

A. L. Batts, executive vice chairman of the Association of American Railroads' Freight Claim Division, and Carl Naffziger, director of the division's L&D prevention section, have spent most of their lives dealing with L&D at both individual railroad levels and at an industry-wide level. Here is what they think the real cost is:

—The indirect cost of servicing claims for L&D in terms of claim departments, AAR and individual railroad L&D prevention work, plus the time and money spent working cooperatively with individual shippers and shipper organizations because of L&D, probably equals or exceeds the amount actually paid out for claims.

—There can be no accurate estimate of the cost to railroads of impaired customer relations that come about because of L&D. But Batts and Naffziger feel that a conservative guess at the loss in revenue because of failure to correct specific L&D situations comes to at least four or five times the actual cash payout for L&D claims—or a loss

somewhere between $600 million to $750 million per year.

• **A billion-dollar problem?** If the experts are right (and they insist they're being conservative, when they make these estimates), the L&D cost for the industry is pretty close to a billion dollars.

There is another dimension, too, to railroad expenditures for L&D prevention. Payments for claims and the cost of the claim/L&D-prevention departments are dwarfed by the torrents of cash railroads have poured out since World War II for equipment and devices that suppliers have developed to minimize L&D.

Hundreds of millions of dollars are spent every year on equipment designed to reduce or eliminate L&D. Covered hoppers have practically eliminated L&D to ladings they handle. Thousands of cars equipped with cushion underframes, bulkhead dividers, racks, sidewall fillers, insulation and other hardware developed by railroad supply companies have been installed in the carfleet in recent years. The CN cars for newsprint are a case in point.

• **Equipment equations are tough.** Trends in L&D-prevention hardware are always closely tied to other requirements of railroad customers. The hundreds of pools railroads maintain for large shippers illustrate not only the trends in L&D-prevention hardware but also trends in equipment designed to furnish shippers with maximum loading and unloading efficiencies. The automobile pools (RA, Jan. 20, 1964, p.120) are good examples of the interrelated requirements in equipment design. The Procter & Gamble pool, the pool being assembled by railroads for Corn Products, the cars in assigned service for General Foods, and a long list of other shippers' pools (RA, Nov. 29, p.30) reflect the costly nature of controlling the L&D problem.

Railroad transportation is more and more a precision service. Operations are becoming more efficient in terms of heavier loads, faster trains and bigger cars.

That cost is never included when industry experts talk about the magnitude of the L&D bill every year.

• **How much is enough?** W. D. Lamprecht, vice president, system operations for the Southern Pacific, describing his "considerable feeling of frustration" when he approaches the problem of L&D, said recently that L&D cost (both visible and concealed) is "a major drag on our ability to step out ahead of the tough competition which is facing us for every ton of freight."

Noting that delivery of shipments in good condition is sometimes more important that rates or schedules, Lamprecht said, "Failure to control L&D is eating increasingly into our net income in two ways [direct and indirect costs and also the loss of future business] at a time when we have the most urgent need for all the net income we can get to finance improvements to plant and equipment.

"I do not say that our L&D prevention efforts have not had an effect. Without them the climb in the claim ratio would undoubtedly have been much steeper. What I am saying is that our prevention efforts have not been adequate to keep pace with the rising cost involved when damage does occur with the growing movements of items of very high value.

"We're running faster, but the treadmill is speeding up even more. We've go to start gaining again before it's altogether too late."

Attributing the causes to inadequate handling and to a need for proper equipment, Lamprecht took a look at SP's experience. SP's experience with 3,813 Hydra-Cushion-equipped cars in a six-month period indicated the average claim per trip of those cars was $3.86 — compared with an average claim of $12.11 per trip for standard box cars handling the same commodities.

• **It won friends, but** . . . "This reduction in damage . . . undoubtedly won SP a lot of friends among the shippers who used the Hydra-Cushion cars," said Lamprecht, "but it can hardly be considered that SP saved this amount. On the contrary, we had to put out about $3,000 additional in capital cost to equip each car in the first place. This is just about the same number of dollars in claims that the car will save SP in its 20-year life—but in this case the savings will be in terms of less expensive operating dollars."

Admitting that claims will be less with this kind of equipment, and that SP will be "paying even more money out of another pocket," Lamprecht made this point: Acquiring this kind of equipment is an important answer to the problem of meeting competition more effectively. "On this basis, we must certainly endeavor to expand the fleet of these cars as rapidly as possible."

On SP, that conviction has resulted in this program: Practically all closed cars SP has purchased since 1956 have been equipped with Hydra-Cushion underframes, and SP has extended use of this cushioning device to flat cars and auto-rack cars. "We consider this so important that we are choosing to buy these cars even though we could purchase a considerably larger number of ordinary cars for the money we have available. To get maximum value from these new cars, of course, we have to use them where they will do the most

A WORK TRAIN grinding rails smooth on NYC main line near Terre Haute, Ind., illustrates expensive care of fixed plant needed for L&D prevention.

good. We have to steer the most damage-prone commodities into them . . . With many kinds of traffic, the cars with load protection have permitted much heavier loadings with a simultaneous decrease in claims."

● **L&D: R&D's hidden bonus.** Myron M. Christy, president of the Western Pacific, made two substantial points at the annual meeting of claim and L&D-prevention experts last year.

Citing the work of his road's Marketing Field Service section, Christy said the battle against L&D on WP deeply involves people with knowledge—and authority—in the areas of sales, freight-claim prevention, mechanical and operating. WP's experts have worked on major equipment development problems and on smaller problems where effort and ingenuity have paid off handsomely.

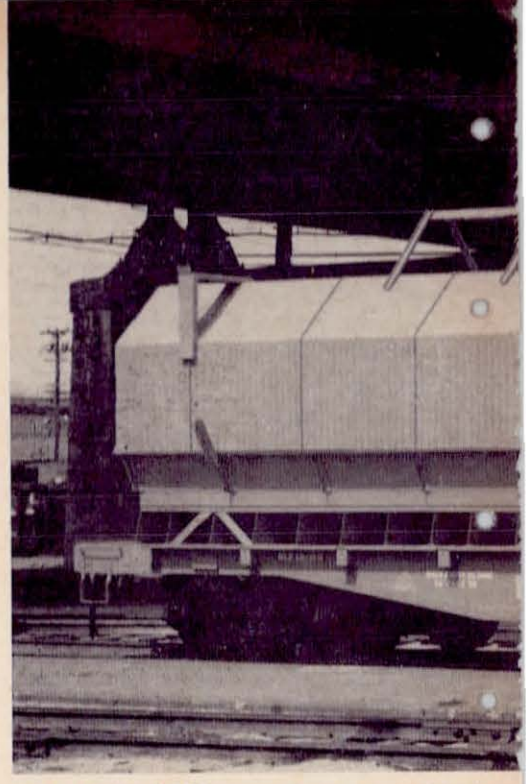
Christy's other point is that more and more carriers are realizing the basic importance of controlling the L&D problem for reasons beyond the size of the L&D payout every year. "So there may be no misunderstanding," said Christy, "I should like to point out that such action is not necessarily productive of net expense savings to the railroad. What is saved on damage claims and more will probably be spent on development work and equipment innovation. But I suggest that in the process we will have put the waste of damage claim dollars to work in creating some extra incentives for shippers to use and expand their use of rail service—and to be satisfied with that service."

● **Industry prescription.** Noting that many other railroads are already wooing shippers this way, Christy suggested a proper objective for the battle on L&D is the fact that "our problems and shippers' problems are mutual, and we will only gain and hold profitable traffic to the extent we make it unprofitable for our customers to use our competitors. That means marketing a complete transportation package which has shipper incentive written all over it—including damage prevention."

As the year closes on another chapter of the industry's L&D prevention story, this much is visible. Though the payout went up almost 5%, the industry's battle against L&D was having some effect. The rise in payout was smaller than might have been expected.

Carriers are buying the equipment needed in the fight against L&D as fast as increased earnings allow. L&D prevention efforts are being increased. Supplier R&D and contribution to the L&D problem is at an all-time high. Individual carrier efforts, spotty though they are, have sharply reduced the rate of increase of L&D claims.

BATTLING L&D WITH BRAINS



P&LE FLAT CARS have been converted to

How new hardware helps combat L&D

Railroad-supplier-shipper cooperation constantly improves the equipment used in the all-important fight against lading damage.

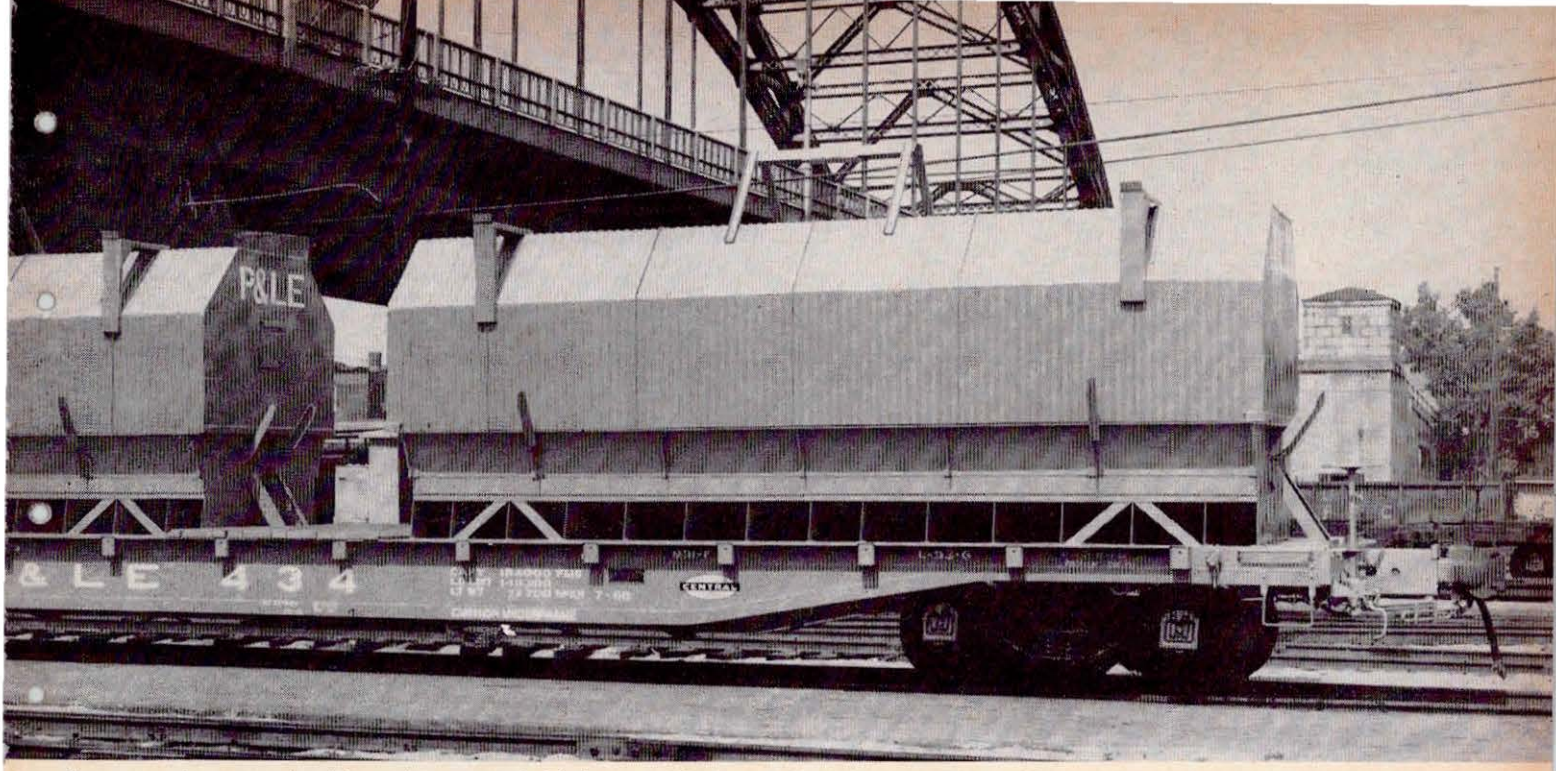
When operating, mechanical and L&D-prevention men get together on the equipment aspect of an L&D problem nowadays, they've got options such as few people but new-auto buyers ever have. They are, in fact, apt to have at their command an array of hardware that would make even an automobile salesman sit up and take notice.

Railroad supply companies, quick to scent a need for devices that minimize — or eliminate — L&D to shipments, have poured research and development money and brainpower into a long list of products. The stuff is expensive. A box car equipped with all L&D accessories can easily cost double what a standard box car the same size costs.

● **Success and failure.** Since World War II there have been railway supply companies that have grown mightily because they were in early and stayed strong in the development and production of devices aimed at L&D prevention. Other large companies have taken it on the chin because they didn't move quickly enough into the field or, oddly, because they moved in too quickly. Some devices introduced did not prove to have the kind of ultimate profitability in either cash or service benefits that railroads insist upon getting. One large company reportedly lost close to $2 million straightening out a design deficiency in a product it introduced to the industry. "It was a blow that would have wiped out a less established company," was the way one competitor described the mistake.

It is a highly competitive business. R&D for new devices is highly secretive —and intense. For suppliers, a breakthrough in any of a dozen areas of L&D prevention can mean a bonanza. For such fortunate suppliers, there are usually lawsuits, too, as they attempt to keep their developments from other suppliers eager to get in on a good thing. There probably are more lawsuits filed for violation of patent rights in L&D prevention equipment than in all other kinds of railroad equipment.

Pioneer L&D-prevention-device manufacturers like Evans, Brandon, Hydra-Cushion and others soon found themselves surrounded by competitors mar-



coil cars and equipped with series-mounted friction cushioning devices for a smoother ride.

keting new devices and variations of equipment designed to fill the apparently endless need for L&D-preventing equipment on the railroads. Lawsuits and counter-suits are understandably frequent. One large supplier keeps a top-flight R&D engineer working continuously on such lawsuits.

● **Old items used differently.** Sometimes the devices that have been around in the industry for a long while are turned to new uses in the L&D-prevention cause. Pittsburgh & Lake Erie Chief Mechanical Officer W. F. Kascal reports how cooperation between his railroad and Cardwell Westinghouse solved an L&D problem for new steel coil cars P&LE was putting into service. Various friction cushioning arrangements for P&LE's coil cars were worked out by Kascal's engineers working with Lloyd Cardwell, vice president-research and engineering for Cardwell Westinghouse.

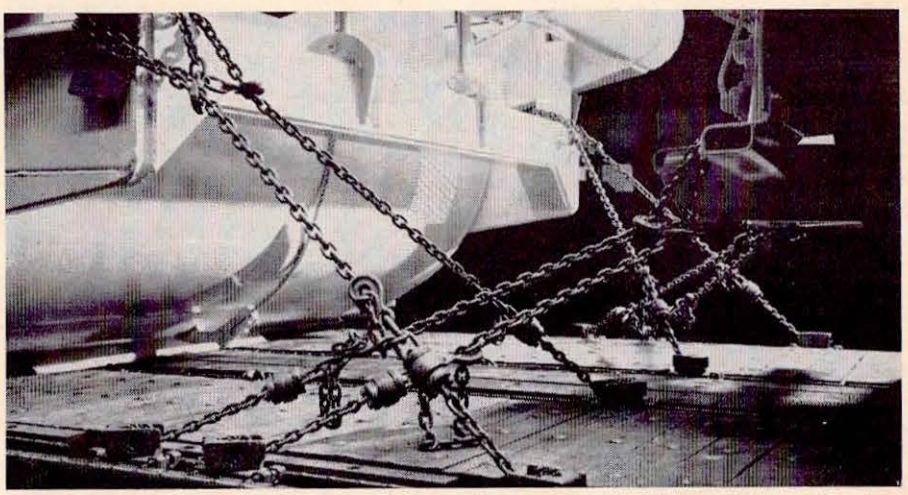
In May 1962, recalls Kascal, P&LE's prototype car was placed in service. By mid-1963 20 covered gondola coil cars were put into service. Thirty more were put in service late that year. Late in 1964, 150 53½-foot standard flat cars were bought from Greenville and put into service. Last July, 50 of the flat cars were converted to coil cars.

● **Cars reduce claims.** The gondolas and two box cars have been used in coil tinplate service and the flat cars have been in transformer traffic. The 50 converted flat cars have been in coil-steel service.

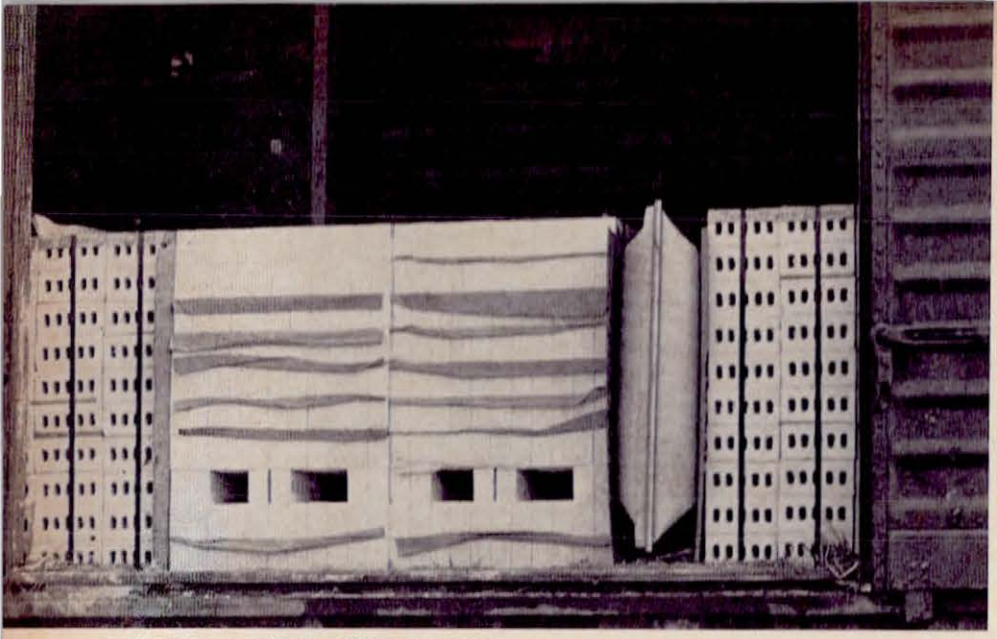
Says Kascal: "Of the shipments of both coil steel and coil tinplate, the destinations have been throughout the United States, as far south as Tampa, Fla., and Houston and to the West Coast, together with shipments to the automotive industry in the East and coil tinplate to various can companies in the East. Damage claims or intent of claims filed have been practically nil."

Cushioning systems are spectacular improvements in the L&D-prevention characteristics of railroad equipment, but comparable improvements are often made in standard items—without being particularly noticeable. Consider the possible developments that may stem from changes in a basic item like a coupler. *(Continued on next page)*

WAUGH'S DYNACOUPLER may figure in new L&D-prevention uses.



MACLEAN-FOGG'S agricultural equipment tie-down system has cushioning devices in the chain. Swiveling mounts run in channels flush with car decks.



INFLATABLE PAPER DUNNAGE BAGS used for a load of brick—after an 8.5-mph impact test.

"Few impact test devices have had a more far-reaching effect than the Waugh Dynacoupler," says S. H. Fillion, chief engineer for Waugh Equipment Co. "A coupler dynamometer, it has become the basic tool for impact testing of freight equipment and has made possible many present-day test specifications which led to sophisticated cushioning devices. Developed in 1952, the Dynacoupler transforms buffing and draft forces into electrical signals which may be read directly or recorded on an oscilloscope chart."

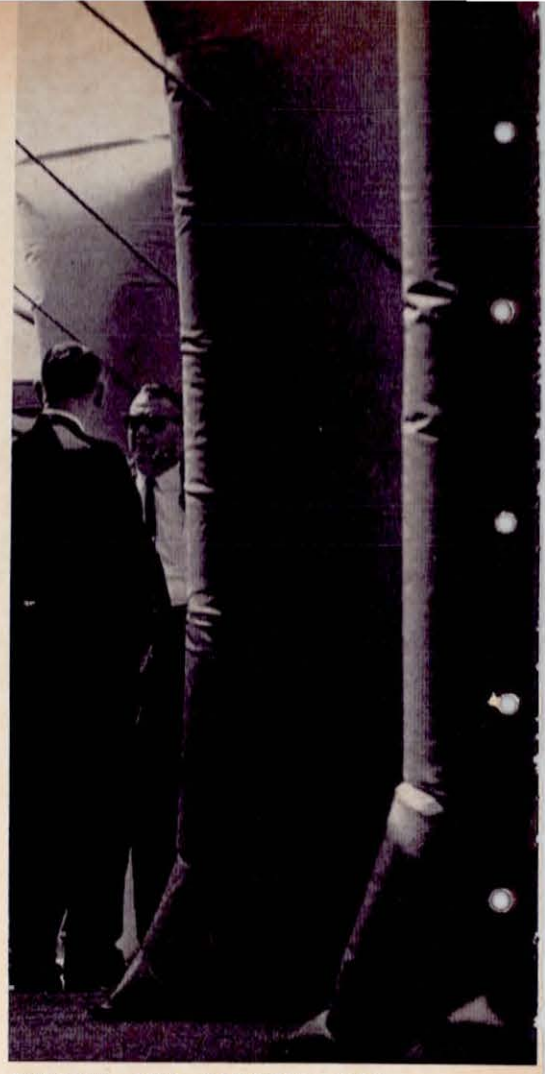
• **Important building steps.** The Dynacoupler's value may soon extend far beyond suppliers' laboratories. It can, for example, be used on automatic trains for continuous force measurement. When a train reaches a grade and the load increases, the Dynacoupler can transmit signals for more power. With the use of locomotives in the middle of trains, the desirability of activating air brakes simultaneously on all cars in a train, and other problems under active scrutiny by supply company R&D efforts, make it easy to see how advances like the Dynacoupler can be important building steps to yet-unthought-of advances in the area of L&D-prevention equipment.

Lord Manufacturing Co. unveiled a device earlier this month that illustrates how some "fall-out" from scientific research in industry and the space program is coming to the aid of railroads in their battle against L&D. A new shock-control system that Lord says is maintenance-free provides 12-inch travel in either direction. Called the Dyna-deck system, it was developed by Lord engineers in close cooperation with railroad, railroad equipment and carbuilder experts. "With the system," says Lord, "it is possible to provide a completely cushioned rail-car deck. Everything above the running gear and car frame is isolated from impacts and high frequency shock and vibration."

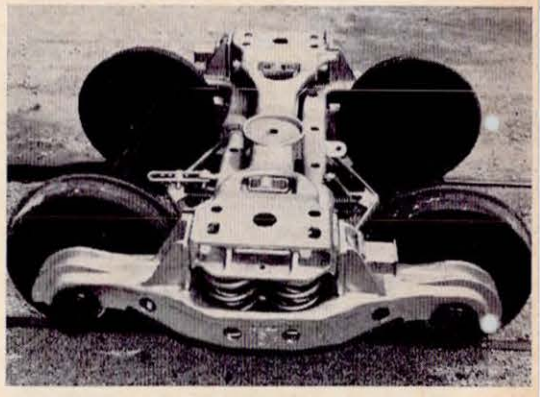
• **New bonding capability.** Dyna-deck is made of bonded steel and rubber and can deflect in shear to provide up to a foot of travel in either longitudinal direction. It is installed between car frame and deck, and because of the special elastomer mountings, needs no maintenance.

After World War II, some primitive load-securement systems, used by railroads, depended upon chains fastened to stakepockets at the sides of flat cars. Brandon and Evans produced commercial chain tie-down systems that greatly reduced the dunnage and loading/unloading expense of shippers loading agricultural implements, vehicles, lumber, machinery and other bulky devices on railroad flat cars.

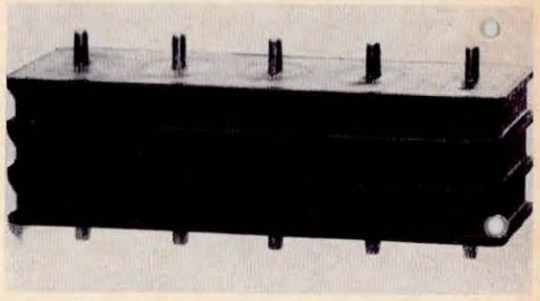
MacLean-Fogg got into this side of the L&D-prevention business a few months ago, after months of rather typical testing, cooperation and research to design a chain tie-down system. Working extensively with International Harvester and other members of the Farm and Industrial Equipment Institute, MacLean-Fogg has come up with an agricultural equipment tie-down system which "is achieving shipper acceptance," says Phil Schwiebert, MacLean-Fogg product engineer. Schwiebert, a mathematician, worked in the atomic-energy field before MacLean-Fogg recruited him to work on the complex metallurgical/stress problems involved in creation of the new system. He says successful impact tests have been conducted with a great variety of track and wheel-type loads varying in weight from less than 5,000 up to 100,000 pounds. The tests were con-



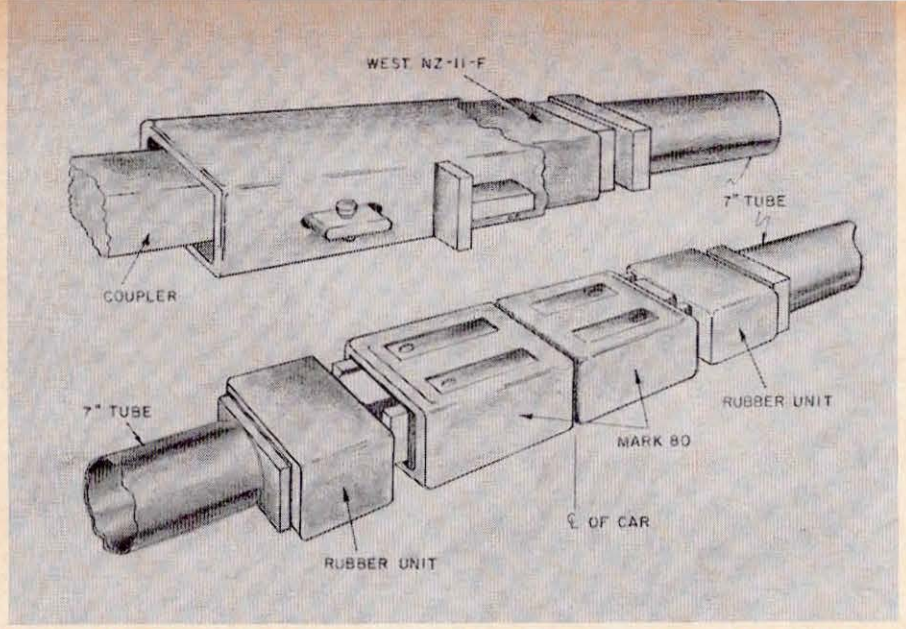
SHIPPER AND RAILROAD MAN are dwarfed by inflatable, disposable paper dunnage bags.



ROCKWELL MANUFACTURING'S truck for high-use front-end equipment and cabooses.



LORD'S new shock control device for mounting decks to car frames.



CARDWELL-WESTINGHOUSE friction draft gear arrangements used in P&LE coil cars. Damage claims, the road says, have been practically nil.

A MODEL of the 10,000th trough hatch covered hopper is presented to ATSF President E. S. Marsh, left, by Pullman-Standard President J. W. Scallan.

ducted up to destruction speeds of 17.5 miles per hour without loss of the load.

● **Universal use wanted.** Problems that have been present in chain tie-down systems, says Schwiebert, are hurdled by the MacLean-Fogg system. He cites the fact that economics does not usually justify railroad expense in equipping cars that have only limited use—as they likely would if equipped with heavy winch and chain tie-down systems designed for only heavy and bulky equipment. Such cars, says Schwiebert, though satisfactory for heavy equipment, are of little or no use for small or medium size equipment shippers. MacLean-Fogg—and International Harvester, too—is taking the position that its new system can be used successfully for loads ranging up to 100,000 pounds.

International Harvester, which maintains its own handling and materials research department, has experience with chain tie-down systems going back to 1952. "We used to use anywhere from $5 to $50 worth of blocks and nails securing a load," recalls F. H. Wiley, general supervisor for International Harvester's materials handling research. "And we used to get anywhere from five to 10 complaints a day because of damage caused by loose blocks, snapped wires or shifted loads. We don't foul the car decks anymore. Our customers also get up to 50% reductions in unloading times," he says.

● **Cooperation is key.** Here, too, was another story of the kind of intense railroad-supplier-shipper cooperation that is increasingly solving one bad L&D situation after another. International Harvester and MacLean-Fogg worked together to develop standard spacing intervals and chains for what IH considered an ideal car for their shipments and, if possible, for the entire implement field. Chain, layouts, length of car, cushioning devices attached to chains—a whole complex, interrelated maze of factors, was steadily worked out and impact-tested by both the Milwaukee and International Harvester.

Some implement manufacturers were reluctant to adopt chain tie-down systems. International Harvester's Wiley and Fred Bellinger, material handling engineer, pushed in two directions for the systems—for their adoption and also for adoption of standards by manufacturers that will include strategic fasteners on products being shipped so that maximum advantage can be taken of the new tie-down systems.

● **Truck advances help, too.** Along with systems aimed at controlling the motion of lading in cars or on flat cars, the supply industry is also refining standard equipment in ways intended to pamper loads. The Rockwell high-speed, high-mileage express freight truck is a case in point. It is designed with a spherical ball bearing in each of its transoms to give it an equalized riding plane.

Earlier this year the Interlake Steel Corporation introduced a line of disposable, inflatable paper dunnage bags, after testing the device in laboratories and on test tracks and in test shipments for prospective customers. Last summer more than 300 railroad men and industrial shippers watched the paper dunnage bags demonstrated in impact tests. Cars loaded with brick and newsprint were impacted at speeds up to 12 mph. The dunnage bags, inserted in voids between portions of the loads in the cars and inflated, held and cushioned the loads in place despite the impact.

● **Plastic coating seals bag.** The bag is made of an inner bag of high-density polyethelene and six-layers of 100-pound test kraft paper coated on the outside with polyethelene. The disposable, inflatable dunnage bags have been used successfully with loads of grape lugs, peach boxes, bricks and other commodities.

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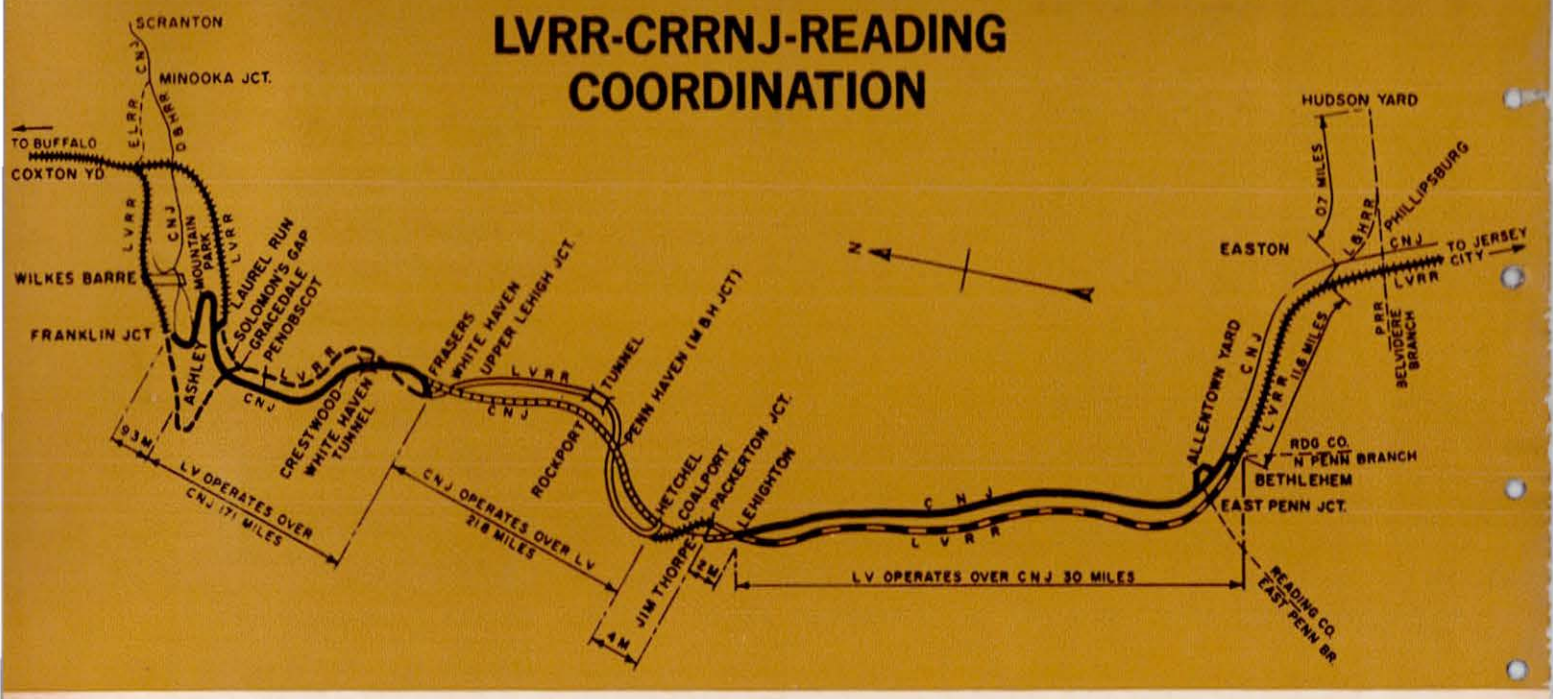
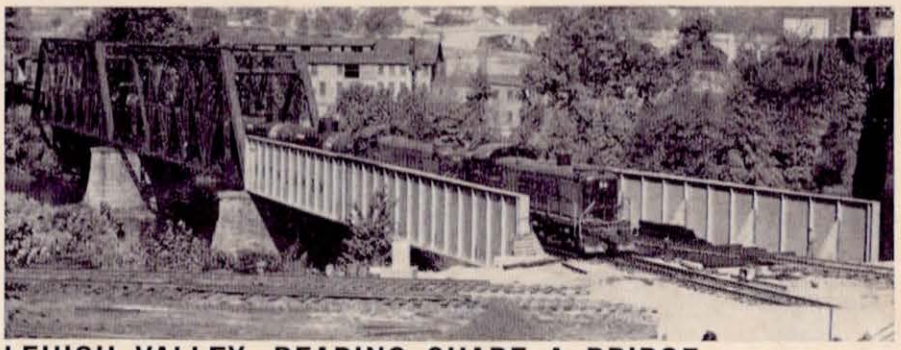
LVRR-CRRNJ-READING COORDINATION



NEW BRIDGE SECTION

A span with a wide opening accommodates a 15-degree connecting curve.



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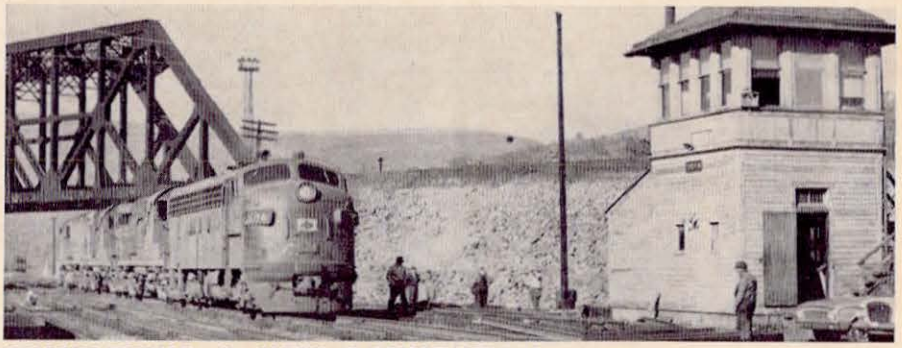

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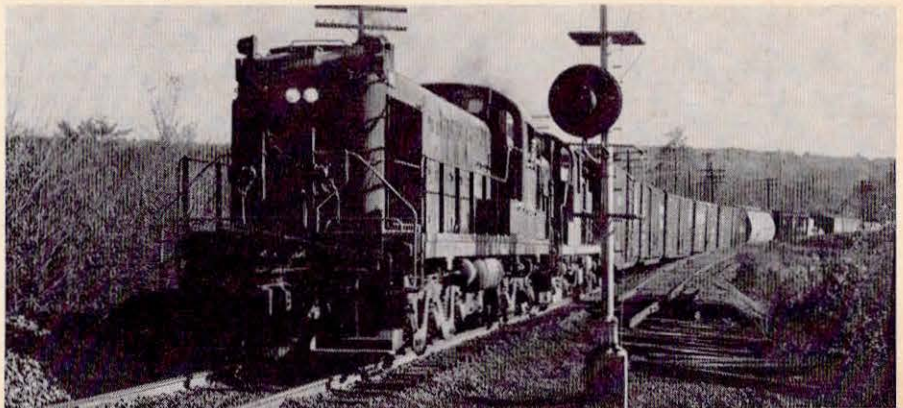

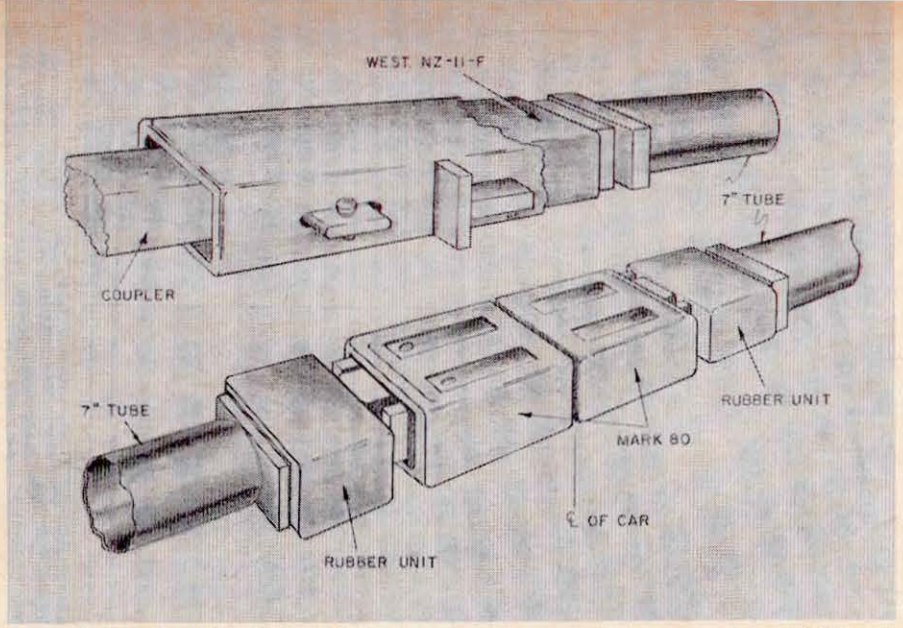

CARDWELL-WESTINGHOUSE friction draft gear arrangements used in P&LE coil cars. Damage claims, the road says, have been practically nil.

A MODEL of the 10,000th trough hatch covered hopper is presented to ATSF President E. S. Marsh, left, by Pullman-Standard President J. W. Scallan.

ducted up to destruction speeds of 17.5 miles per hour without loss of the load.

● **Universal use wanted.** Problems that have been present in chain tie-down systems, says Schwiebert, are hurdled by the MacLean-Fogg system. He cites the fact that economics does not usually justify railroad expense in equipping cars that have only limited use—as they likely would if equipped with heavy winch and chain tie-down systems designed for only heavy and bulky equipment. Such cars, says Schwiebert, though satisfactory for heavy equipment, are of little or no use for small or medium size equipment shippers. MacLean-Fogg—and International Harvester, too—is taking the position that its new system can be used successfully for loads ranging up to 100,000 pounds.

International Harvester, which maintains its own handling and materials research department, has experience with chain tie-down systems going back to 1952. "We used to use anywhere from $5 to $50 worth of blocks and nails securing a load," recalls F. H. Wiley, general supervisor for International Harvester's materials handling research. "And we used to get anywhere from five to 10 complaints a day because of damage caused by loose blocks, snapped wires or shifted loads. We don't foul the car decks anymore. Our customers also get up to 50% reductions in unloading times," he says.

● **Cooperation is key.** Here, too, was another story of the kind of intense railroad-supplier-shipper cooperation that is increasingly solving one bad L&D situation after another. International Harvester and MacLean-Fogg worked together to develop standard spacing intervals and chains for what IH considered an ideal car for their shipments and, if possible, for the entire implement field. Chain, layouts, length of car, cushioning devices attached to chains—a whole complex, interrelated maze of factors, was steadily worked out and impact-tested by both the Milwaukee and International Harvester.

Some implement manufacturers were reluctant to adopt chain tie-down systems. International Harvester's Wiley and Fred Bellinger, material handling engineer, pushed in two directions for the systems—for their adoption and also for adoption of standards by manufacturers that will include strategic fasteners on products being shipped so that maximum advantage can be taken of the new tie-down systems.

● **Truck advances help, too.** Along with systems aimed at controlling the motion of lading in cars or on flat cars, the supply industry is also refining standard equipment in ways intended to pamper loads. The Rockwell high-speed, high-mileage express freight truck is a case in point. It is designed with a spherical ball bearing in each of its transoms to give it an equalized riding plane.

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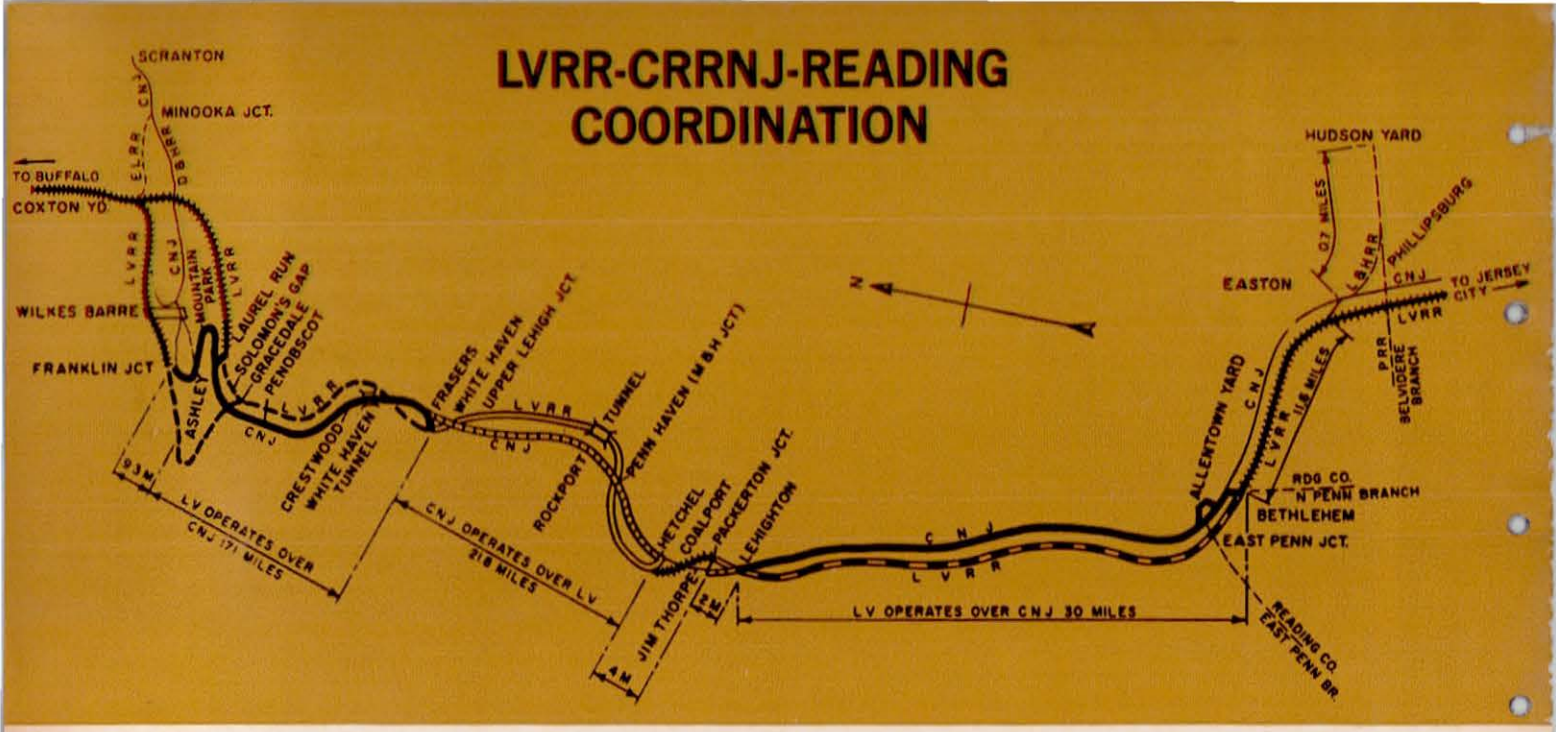

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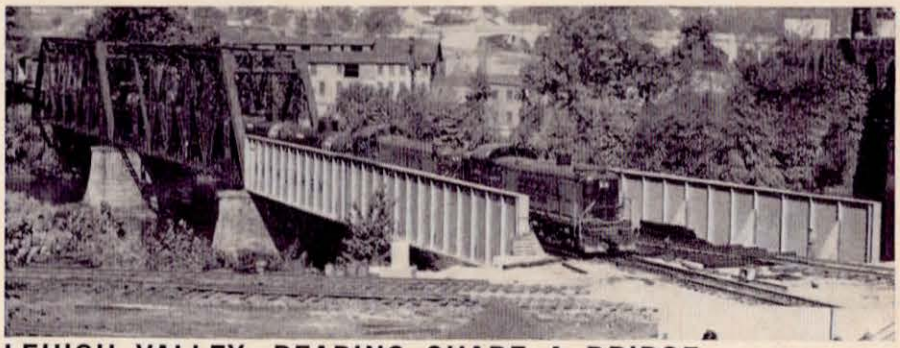

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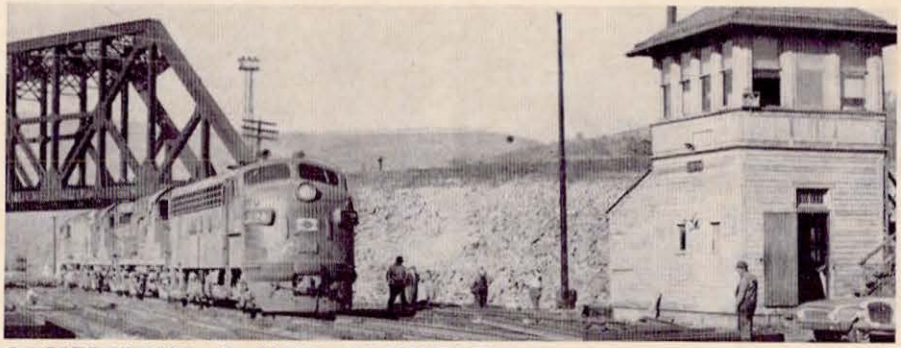

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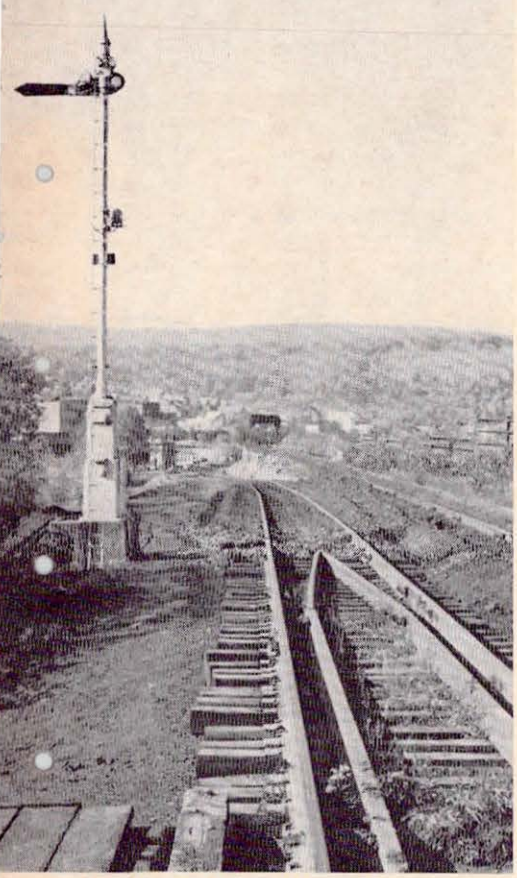
LEGEND
CNJ to operate over LV
LV to operate over CNJ
LVRR lines—One track to be abandoned
CNJ lines to be abandoned
LV lines to be abandoned
Other CNJ lines to be retained
Other LV lines to be retained
Other Railroads

NEW TRACK WORK

Looking north along CNJ main line at Lehighton with one of two new tracks running along base of fill to connection with LV under bridge.

Coordination expected to save $827,000

- **Lehigh Valley and the Central of New Jersey now have a joint operation where their lines paralleled each other.**
- **The $1.3-million project was undertaken with the cooperation of the Reading, which will share anticipated savings.**

The sounds of bulldozers and rail-spiking echoed through the wooded valleys of the Lehigh River in northeastern Pennsylvania this fall as two paralleling railroads prepared to coordinate parts of each railroad into a more efficient and cohesive single line. An estimated total construction bill of $1,296,500 will be shared by the two coordinating lines—the Lehigh Valley and the Central of New Jersey—plus a third line, the Reading. All three will share in the anticipated total net annual savings of $827,000.

● **Almost identical routes.** The Lehigh Valley extends from Jersey City, N.J., west to Easton, Bethlehem and Allentown, Pa., then follows the Lehigh River north to the summit on Penobscot Mountain. It descends by two routes to Wilkes-Barre and Coxton, goes along the Susquehanna River to Sayre, and crosses into New York state running through Ithaca to Buffalo and Niagara Falls. It operates a network of branches in central southern New York state and the anthracite region of Pennsylvania.

The Central of New Jersey follows an almost identical route from Jersey City, N.J., into Wilkes-Barre, Pa., where it goes northeast to terminate at Scranton, Pa. A principal branch extends from Newark, N.J., along the north Jersey coast through Lakehurst to Bridgeton, N.J. A connection at Bound Brook, N.J., provides the Baltimore & Ohio and the Reading with access to the New York City area.

Officers of both lines have often given thought to a coordinated operation where their lines closely parallel each other, i.e., Bethlehem to Wilkes-Barre. But during the past summer talk became "dirt-moving" reality.

By early June, drafting rooms of both roads had finished preparing blueprints to show what was to take place along 84.2 miles of paralleling railroads. The blueprints called for retention of 56.4 miles of CNJ and 23.8 miles of LV main track. At one point, both roads would retain their own rails for four miles. The CNJ was to abandon 23.8 miles and the LV 26.4 miles of main-line track. The LV was to single-track 30 miles of main-line track for industrial purposes. Both roads, with the cooperation of the Reading, would rebuild one span of a major bridge and expand existing facilities in one yard.

● **Bridging a gap.** A major reconstruction project involved replacement of the south span of the bridge across the Lehigh River at the back door of the LV's general offices in Bethlehem. This single-track, through-truss bridge afforded the Reading a connection from its North Penn branch out of Philadelphia to the CNJ at the east end of the latter road's Allentown Yard. To get a connection from the LV's westbound main to the bridge required a span with a wide opening to accommodate a 15-degree curve dictated by the pilings of a highway bridge just east of the project and through which the connection would have to pass.

West and Wells, engineering consultants from Bethlehem, acted as advisors in conjunction with CNJ engineering forces. Burly Construction Corp. of New York City built the new abutments. Bethlehem Steel dismantled the old span and erected the girder-type span designed for E-72 loading. The bridge was out of service for two months, during which time traffic was handled through the Reading's East Penn Junction interchange at Allentown.

(Concluded on next page)

In 1952 CNJ rebuilt its Allentown yard incorporating humps and retarders (RA, Nov. 3, 1952, p. 73). In anticipation of additional traffic, two more tracks, each of 74-car capacity, have been added. Work formerly handled by LV yards in the vicinity will be transferred to this yard. LV traffic officers expect this move to speed all their interchange in the area since it will benefit from a larger range of classifications. In particular they expect faster moves on cars routed over the Reading to the Philadelphia area and on cars routed to the Lehigh & Hudson River at Hudson Ward, Phillipsburg, N.J., for forwarding to the New Haven at Maybrook, N.Y. Use of this yard will also cause rearrangement of LV's local service in the area.

● **New double-track connection.** LV will operate from South Bethlehem northward over the CNJ a distance of 30 miles to Lehighton. It will retain one of the two former main-line tracks via Allentown to Lehighton to serve as an industrial track. At Lehighton, the CNJ crosses the LV on a double-track through-truss bridge. A double-track connection has been built to connect the two lines so that all traffic will pass through the LV's Packerton yard. The CNJ span, scheduled to be dismantled, was raised eight inches to clear high loads moving in or out of Packerton yard in either direction to the new connection.

At the north end of Packerton yard, with both lines on the west bank of the river, a new connection was made at Packerton Junction to enable the CNJ to maintain service to Jim Thorpe (formerly Mauch Chunk) and its Nesquehoning Branch. Beyond the connection the LV crosses to the east bank of the river. With a line on each side of the river it continues to Coalport where the CNJ crosses the river to the east bank and also crosses over the LV. Then, paralleling each other, they continue to Hetchel where the CNJ comes into a single-track connection with the double-track LV. Both roads will use their respective trackage of four miles each between Packerton Junction and Hetchel for all movements. Beyond Jim Thorpe, due to the topography, there are no industries to be served short of White Haven.

● **Grade crossings eliminated.** From Hetchel, LV trackage will be used for a distance of 21.8 miles to Frasers. CNJ trackage will be abandoned; this will mean removal of a grade crossing with the LV at M&H Junction (Penn Haven). Between Hetchel and M&H Junction both lines are on the west bank of the river, the LV having the higher elevation. The CNJ has had flooding problems in this territory.

In White Haven, one of two highway grade crossings in the main business district will be eliminated. The LV crossing that will remain is flasher-protected. At Frasers, two miles beyond, a new connection has been built to connect the double-track LV to the single-track CNJ. The single-track CNJ will be used for eight miles to Crestwood. Located three miles north of Frasers on this portion is White Haven tunnel, a straight-line bore of 1,726 feet. It did not have the same clearance as the LV's Rockport tunnel, 11 miles to the south. CNJ retained Mohawk Constructors, Inc. of Linden, N.J., to remove 85 cubic yards of rock from the roof. This increased the minimum clearance at center line of track by one foot, to 18 feet 9 inches, thus insuring handling of the highest loads formerly clearing on LV tracks.

From Crestwood the double-track CNJ will be used for five miles to Solomon's Gap, top of the grade passing over Penobscot Mountain. All LV trackage will be abandoned from Frasers to Franklin Junction and Laurel Run. This involves the single-track line turning west from Solomon's Gap going down the mountain to reverse on itself and pass through Franklin Jct. into Wilkes-Barre. The double-track Mountain Cutoff branched north-eastward from the Wilkes-Barre line at Solomon's Gap, descending the mountain through Laurel Run and into Coxton where it rejoined the line through from Wilkes-Barre.

. . . Expected annual savings will be $282,000 each for the CNJ and LV; for the Reading, $263,000.

The only track changes to be made at Franklin Jct. will be removal of the LV's single track coming into the plant from Solomon's Gap, as this was a permanent installation controlling CNJ moves over the LV to the CNJ's Buttonwood branch and its Franklin branch. At Laurel Run a connection has been run from the single-track CNJ to the LV's double-track Mountain Cutoff.

● **Changes in signaling.** With track changes have come signaling changes. LV through this territory was operated by automatic signals with interlockings at Lehighton, Penn Haven (M&H Jct.) and Gracedale, south of Solomon's Gap. The CNJ used automatic signals with the current of traffic to Lehighton. From M&H Jct. to Mountain Park, just south of Ashley, the line was operated by CNJ dispatchers from a CTC board in the Allentown office.

General Railway Signal did the redesigning to incorporate all the new connections and track into its original type K-2 machine at Allentown. The only junction not controlled will be Packerton Junction, which will be under Lehighton tower. Signal aspects will be those used by the road formerly having control of the interlockings. Train crews of both lines will continue to operate their own trains under general orders and timetables issued by each road. At present, LV operates four scheduled freights each way daily, a tri-weekly local each way and several unit coal trains per month. CNJ operates four scheduled freights each way daily.

● **Cooperative effort.** Track, signal and structural work was shared by the forces of each railroad. The same forces will be responsible for maintenance of the respective portions of the railroads that are retained.

The CNJ uses radio communication on its road engines. Base stations are presently located at Penn Haven and White Haven. With operation over LV trackage at places west of Lehighton, studies will be made to determine if base stations need to be relocated.

To the total cost of construction, the Reading will contribute $200,000 as its share for the new span at Bethlehem and the two new tracks in CNJ's Allentown Yard. This will leave a cost of $548,250 each for the LV and CNJ. Net salvage is expected to be $4,500 for the Reading, $292,500 for the CNJ and $909,000 for the LV, a total of $1,206,000.

A trackage charge per train mile will be determined that will equally divide the total CNJ-LV savings. Expected annual savings for the CNJ and LV will be $282,000 each; for the Reading, $263,000.

Costs for a job-protection program at Allentown Yard break down to $162,500 each for the CNJ and LV, $522,000 for the Reading. The LV and CNJ will share equally the costs between Bethlehem and Wilkes-Barre, the bill to be $272,000 for each over the five-year period.

With provision for annual review, the LV is paying the Allentown pool $2.14 for each LV-L&HR car handled in the yard, and paying CNJ $3.00 per car for road movement of such cars between Allentown Joint Yard and the L&HR's Hudson Yard at Phillipsburg.

Officers of the LV and CNJ are confident that, once the "bugs" are worked out, they will have a railroad capable of handling any foreseeable volume of traffic. ■

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Will there be any L&N hoppers available in New Orleans Friday? Are there too many cars in the Nashville rack-car pool? Where on the L&N is NYC tank car 18621?

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It has, for example, helped increase utilization of the L&N's 6,000 specialized cars in many instances by as much as 50%.

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Twice a month a report on pool and car performance tells the L&N which pools contain cars that have been idle too long—and where cars are in short supply. L&N management then corrects the imbalances.

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325 new coil cars designed with USS Family of Steels to win more business

This is the first car of a fleet of high-capacity coil cars (with 100-ton trucks) that will make it easier for steel producers to protect and ship steel coils to automotive plants and other steel coil customers.

The cars are now under construction by the Pennsylvania Railroad and are the first of this design ever built. Each will carry up to 99 tons of coils fitted snugly into six transverse troughs, protected from the elements with two-piece steel covers. By offering special cars tailored to the unusual needs of various shippers, many railroads today are able to build rail traffic and increase revenue in the face of increasing competition.

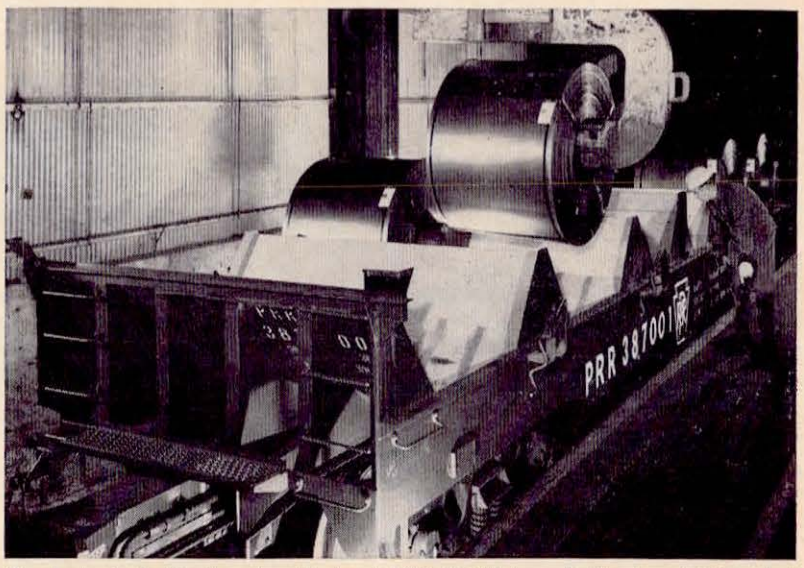
Car light weight is held to an average of 64,700 lbs. by using *four* stronger USS Steels. PRR car designers chose USS "T-1" type A Steel plates, with a minimum yield strength of 100,000 psi for sides of the car, and USS "T-1" type A bulb angles (BA 123 at 11.9 lbs./ft.) for the top and bottom side sills. This is the first use ever made of USS "T-1" type A Steel bulb angles. Weight savings per foot amount to 38%, since a carbon steel bulb angle having a weight of 19.1 lbs./ft. would probably have otherwise been used.

The center sill is fabricated from Z-26 structural shapes of USS TRI-TEN (A441) Steel, a tough, weldable steel with a 50,000 psi min. yield point. 5/16" USS COR-TEN Steel, which offers high strength (50,000 psi), and high resistance to atmospheric corrosion, is used as slope plates in the troughs. The removable special covers are also fabricated of 16-gage USS COR-TEN Steel. USS EX-TEN 50 Steel, noted for strength with economy, is used in the 3/8" trough gusset plates, reinforcement plates and trough angle posts.

The USS Family of Steels permits a designer to create special-use cars today that are lighter and more durable and offer better service than the temporary conversions that many shippers have been using. These all-new coil cars have a payload capacity of 198,000 lbs., yet their light weight averages only 64,700 lbs.

For more information on the USS Family of Steels, call the USS District Sales Office nearest you for the assistance of a technical representative, or write United States Steel, Room 8628, 525 William Penn Place, Pittsburgh, Pa. 15230. USS, "T-1," TRI-TEN, COR-TEN and EX-TEN are registered trademarks.

This mark tells you a product is made of steel



Car body is built almost entirely of USS "T-1" type A Steel and USS High-Strength Low-Alloy Steels for strength, durability and weight reduction.

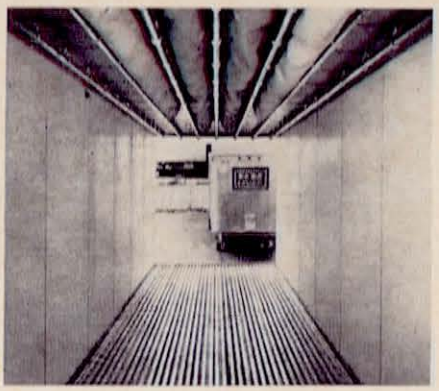
USS United States Steel: where the big idea is innovation

Specially designed by PRR, G-41 car for carrying steel coils, with USS COR-TEN Steel covers for protection from the weather.

NEW PRODUCTS REPORT

Unloading Unit (RA-1)

The 1965 Zimmerman Porta-Vac, using air, moves up to 25 tons of free-flowing dry materials per hour, capacity depending upon the type of material being handled. The unit, which will handle materials from car, truck, or other points, is powered by a gasoline engine or, in stationary facilities, can be operated on skids or wheels with electric power. Primary uses are in the chemical, grain, feed and plastics industries. *Zimmerman Equipment Co.*

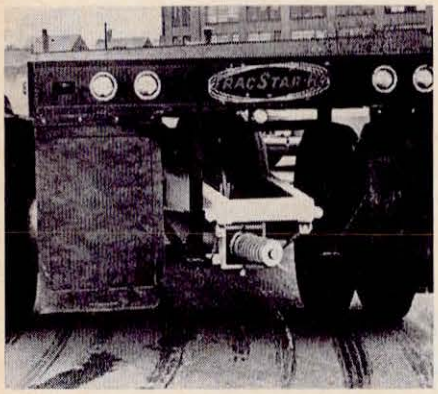


Lining Panel (RA-2)

Glasbord-S is an all-fiber-glass reinforced polyester resin panel for lining refrigerated truck bodies, trailers and containers. Its continuous filament Fiberglas mat is said to make the panel 20% stronger, for the same thickness, than other panels made with conventional fiber-glass mat. The panels are available in 48- x 96-in. sizes and in thicknesses of 3/32, 1/8 and 3/16 in. They may be cleaned with steam or the usual detergent solutions. *Kemlite Corp.*

Offset Gate Valves (RA-3)

The offset gate valve for bulk materials handling diverts a bulk material flow from the main or vertical discharge leg to a 45-deg leg with simultaneous changeover; that is, as the materials flow decreases through one leg, the flow increases proportionately through the opposite leg. Gates can be operated manually, pneumatically, or hydraulically. Motorized units are available on special order. Inside throat openings range from 4 in. through 60 in. *Cleveland-Armstrong Corp.*



Load Suspension System (RA-4)

The optional rubber load suspension of the TracStar, a self-castering and load-equalizing trailer truck suspension system, is said to protect both road and load. The system attaches to the underframe of the trailer directly through a single, horizontal pivot. The rubber suspension is a pair of housings which contain contoured rubber pads bonded to metal. Each housing, complete with two stacks of pads, attaches the castering axle system to the trailer underframe. Each stack of pads includes three full pads and two end pads. A full pad can do 810 ft-lb of work in 0.76 in. of travel. Each pad handles 50,000 lb in dynamic energy at 560 ft-lb of work. In static closure, the pad is good for 70,000 lb at a travel of 0.80 in. Because much of the loaded trailer weight is distributed over the two rear axles, a TracStar-equipped trailer can, legally, handle heavier loads while meeting state axle-load requirements in 38 of 49 states (Hawaii not included), according to a study made by National Castings. *National Castings Division, Midland-Ross Corp.*

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12/20-27/65

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Industrial traffic managers say railroads will share in the rise.

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Better	54
Same	4
Poorer	1

2) How do you expect your total transportation needs in 1966 to compare with 1965?

Larger	51
Same	7
Smaller	1

3) How do you expect your total use of rail transportation in 1966 to compare with 1965?

Larger	37
Same	17
Smaller	4

4) Do you contemplate any major changes in your transportation policies during 1966?

Yes	15
No	41

5) If your answer to Question 4 is "Yes," please explain what changes you are considering. *See following text.*

In a Poll so one-sided as to be virtually unanimous, industrial traffic managers think total business in 1966 will be better than in 1965. With nearly equal unanimity, they think this will mean a greater aggregate demand for transportation.

Railroads, two-thirds of them say, will share in the increase.

This anticipated increased use of rail service may show up more in heavier loading of larger cars than in actual number of cars loaded, says W. E. Maley, director of distribution, U. S. Borax & Chemical Corp., Los Angeles. Carloadings, Maley points out, may be "down or even," but "business generally will be up," and most companies (like his) expect to route at least the same relative proportion of that larger business by rail.

Other respondents make essentially the same point, but their collective replies add up to definite optimism—for themselves and for the railroads.

● **Increasing demands.** Another West Coast traffic man—W. L. Bush, director of transportation, Weyerhaeuser Co., Tacoma, Wash.—"anticipates increasing demands on all modes of transportation to meet economic indicators pointing toward increased housing starts, paper and allied products activity and plywood production increases."

And a Southwestern grain man says, flatly, that "business can't very well be any better so far as grain is concerned." (But he warns that "the carriers need additional grain-handling equipment before very much, if any, increase does happen.")

● **Where railroads will gain.** Replies to Poll Question 4, relating to industrial shipping policies, point up three basic areas where railways may gain, relative to other modes of transport, from the increased total traffic expected for 1966. These areas are:

1) Wider use of TOFC service;
2) Heavier loading of larger cars;
3) Changes in commercial distribution patterns and practices.

Greater use of piggyback is the one factor most frequently mentioned—by no less than seven individual respondents. One of them cites particularly Plans II and V. P. T. Catalano, traffic manager, Steelcase, Inc., Grand Rapids, Mich., sees a possibility of "expanded use of 'uncrated' Plan III, provided the railroads can come up with the right type of trailers for loading." A third sees increased piggybacking as one of several factors which may possibly lead his company to change its shipping policies to the extent of diverting some freight from motor carriers to railroads.

The second possible area of rail gain —heavier loading and larger cars—is mentioned by such respondents as T. E. Nicks, director of transportation, Continental Oil Co., Ponca City, Okla., and J. Robert Morton, manager of transportation, Combustion Engineering, Inc., Windsor, Conn. Nicks writes of "concentration on larger rail cars—tank, box, hopper, etc.—for more bulk movements."

Morton says his company expects to change its transport policies to make "heavier use, and engineering, of specialized equipment," and to "concentrate unit loads to take advantage of incentive rates." He is also one of the seven men who speak of wider use of TOFC, and adds containerization as well.

That changes in over-all distribution set-up—the third area where rails may show relative traffic gains—are receiving close attention is obvious from a number of replies. Most men in this group prefer to remain anonymous, but an example of their thinking is the answer of a Midwestern manufacturer:

"In all probability we will be setting

RAILROADING AFTER HOURS WITH JIM LYNE

LYNE

MAIL TO TRUCKS—One of my colleagues lives in an area where the Post Office has transferred mail traffic from rail to trucks—with the result (so far) that mail service is slower than it was. For example, mail turned over to the Post Office on Saturday used to be delivered on Monday. Now the delivery comes on Tuesday.

The federal government has no consistent policy in dealing with transportation of mail. It will take traffic off the railroads, knowing full well that the diversion of mail traffic will usually necessitate the curtailment or abandonment of railroad passenger service. Is it part of the government's tranportation policy to force the railroads out of the passenger business? Otherwise, why should the government be doing all it can to promote commercial air service while at the same time it follows a parallel policy of discouraging passenger service by rail?

Is one form of common carrier transportation needed in the public interest and another form to be discouraged at the same time? If this is the policy, who established it, and why?

SO LONG, FORT SLOCUM—For the past century—since the Civil War—Fort Slocum, an 80-acre island off-shore from New Rochelle, N.Y., had served as a military post, until it was formally closed to military uses on Nov. 30.

Fort Slocum will be best remembered from a railroad standpoint as the post where officers destined for the Military Railway Service finished their training as soldiers. They had already been commissioned in the Military Railway Service on the basis of their railway service (mostly as supervisory people—master mechanics, trainmasters and so on) and were then sent to Fort Slocum to learn the military part of their job.

EDUCATION FOR RAILROADING—Years ago, I was considering what kind of academic education would be the most desirable—looking forward to a career in railroading. A young railroad civil engineer gave me some such opinion as this:

Training in civil engineering is the best preparation for railroad work—because, with such training, the beginner is able to do useful and skilled work the very day he starts working for a railroad. The student who specializes in economics or business administration, however, learns things that are useful for top management to know, but which are of no immediate value to a beginner in railroad service.

That was a viewpoint widely held, back in those days—and a pretty persuasive one too. And it is certainly not without considerable validity, even today. But, with the need for cost analysis and rather sophisticated statistical calculation in railroading today, the specialist in economics and business administration brings skills to the railroad that are of immediate practical value. Railroads need civil engineers as much today as ever, but isn't it true that there are other technical skills which are also quite essential—and need for which is becoming generally recognized?

SPECIALIZED CARRIERS?—A few years ago some alert young railroaders were doing a lot of discussing, among themselves, of the possible role of railroads as specialized carriers. What they had in mind was the gradual withdrawal of railroads from widely diversified transportation service, and concentration, instead, on specific movements of freight moving in large quantities.

What they were thinking was that railroads—thus concentrating on the jobs they could do best—would greatly strengthen themselves from a competitive standpoint. This viewpoint was one I never went for. I believe the country needs common carrier service—and will continue to get it, in some way or another; and that their willingness to haul all commodities to all destinations is one of the railroads' principal reasons for being.

I know of a couple of railroad leaders whose companies are, at present, not providing passenger service, but who do not consider that this condition is necessarily permanent. Neither do they consider the curtailment by many railroads of LCL service to be a permanent arrangement. They believe that (through the use of consolidations and otherwise) railroads will be able to offer much the same comprehensive service they always have offered.

up more regional warehouses and distribution arrangements to better serve customers. This will require use of more rail shipments and improvement of drayage arrangements."

● **Where railroads could lose.** If railroads stand to gain in some areas, however, they appear liable to lose out, relatively, in others. Most important of these are equipment shortages, service deficiencies or further diversion of business to competitive modes of transportation.

Another respondent who asks not to be quoted says his company will use more rail transportation in 1966 "if I can get better service. If the trend through '66 shows no improvement over '65 then the answer (to Question 3) is bound to be smaller." That would lead, he adds, to major changes in his firm's transport policies.

Another answer points out that "increases in railroad terminal and accessorial charges due to non-competitive conditions have created ill-feeling toward the railroads, and could affect shipper support of future mergers" as well as, presumably, present freight routings.

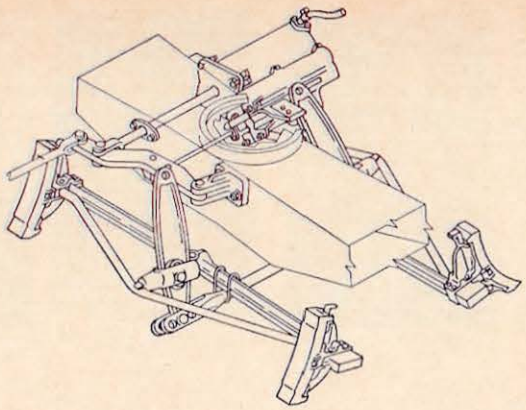
As to "diversion" of traffic away from the railroads, the Burroughs Corp., of Detroit (D. B. Goodwin, TM), expects to make more use of air freight. So does another company, which also expects, however, to "place greater emphasis on piggyback service," both with a view to reducing warehousing operations.

Continental Rubber Works, Erie, Pa. (P. J. Berst, TM), is considering "more use of company-owned equipment." Another major West Coast lumber company, while predicting a 1966 increase in use of rail transportation, says it "will seek to utilize other forms of transportation to a greater extent than in past years."

A. C. Roy, general manager—traffic, Pennsylvania Glass Sand Corp., Pittsburgh, expects the trend "toward truck, away from rail (especially on shorter-haul movements) to continue unless the rails counter with incentive rates based on heavier loading possibilities."

H. H. Kohn, TM, Linwood Stone Products Co., Davenport, Iowa—while predicting greater use of rail service and no major shift in policy—thinks railroads must change their position to cooperate with, rather than oppose, shipper suggestions. When customers are in position to better handle truck deliveries, the truck increase will be greater than the railroads'."

This, he adds, "is a deep-rooted problem. More than competition is involved, as both modes of transport are essential. The problem should be carefully studied by both sides." ■



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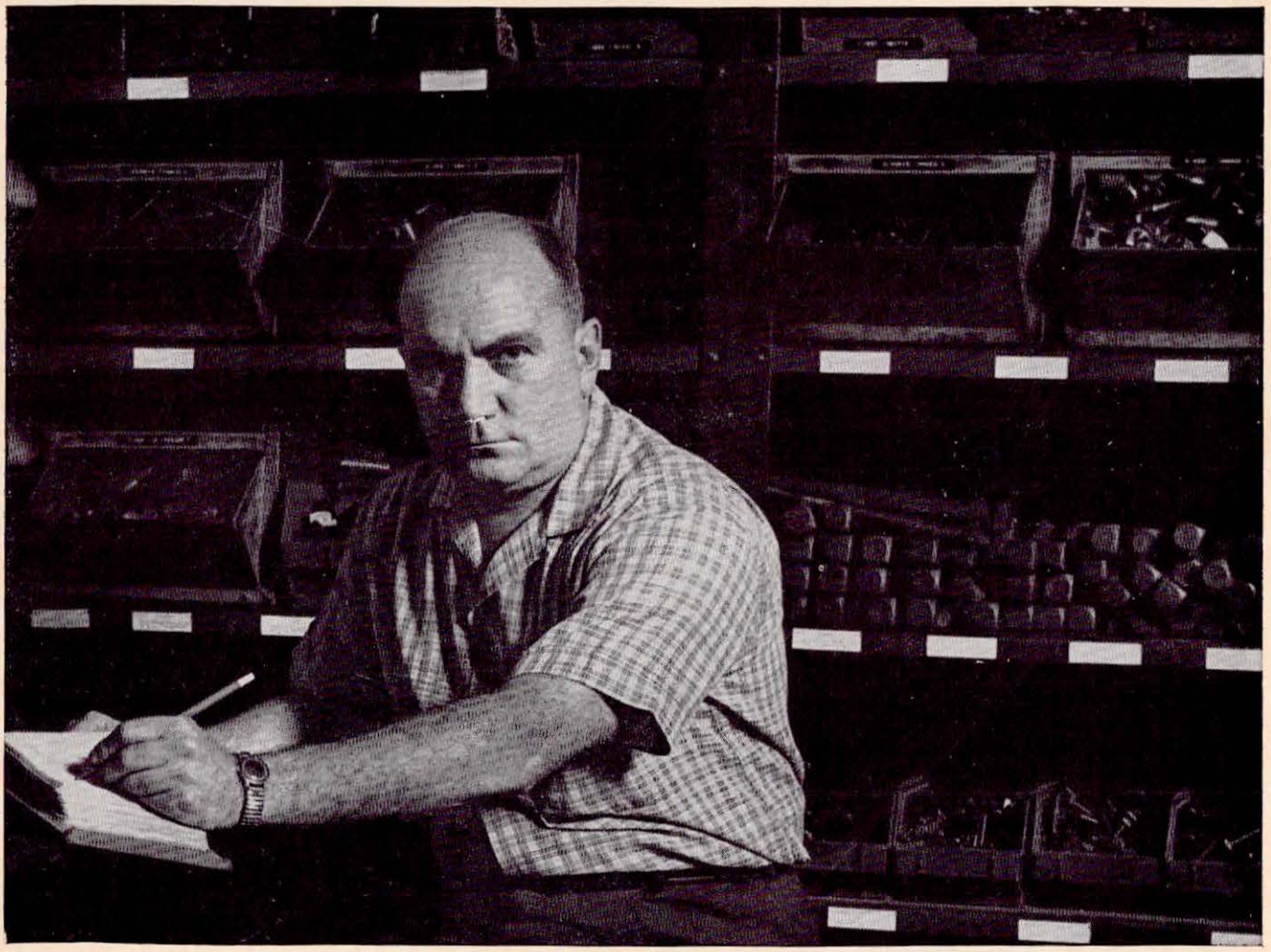

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EJ&E

Olyn R. Bailey, Jr.
TRRA

John W. Godfrey
UP

George H. Billman
Lord

J. R. Anderson
Lord

Franklin S. Harris
Kerite

PEOPLE IN THE NEWS

ELGIN, JOLIET & EASTERN.—Joseph E. Arado, director of traffic research and development, named to the newly created position of director of industrial development, with headquarters at Chicago.

LONG ISLAND.—J. T. Moyer, supervisor—material catalogue, promoted to assistant purchasing agent, Jamaica, N.Y., succeeding **Adam J. Hoover,** named supervisor of engineering material. Mr. Hoover succeeds the late **Joe A. Brown.**

RARITAN RIVER.—Robert G. Kipp, secretary and treasurer, South Amboy, N.J., appointed general manager, succeeding **H. T. Filskov,** vice president and general manager, who resigned to go with the **Vermont Ry.** as vice president and general manager at Burlington, Vt.

REA EXPRESS.—William L. Ardizzone appointed Greater New York sales manager for International Services. He was formerly employed as a freight representative for the Italian Line for ten years.

READING.—Byron C. Cassel, comptroller, Philadelphia, named to the new position of director of corporate planning and chairman of the Development Committee. Position of comptroller abolished.

Anthony F. Zanghi, supervisor, TOFC service, appointed manager, trailer control center, TOFC service, Philadelphia.

P. A. Lucente, assistant to comptroller, financial planning, appointed assistant to director of corporate planning and his former position abolished. **C. W. Pleiss,** assistant comptroller, accounting and data processing, appointed auditor general accounts and taxes and his former position abolished.

SANTA FE.—John J. Mooney, general agent, Peoria, Ill., named division freight agent, Chicago, succeeding **W. V. Hopkins,** appointed manager, TOFC sales and service (RA, Nov. 22, p. 35). Mr. Mooney's successor is **Nat Lo Cicero,** assistant division freight agent, Chicago. **B. J. Carlin,** assistant general freight agent, Chicago, appointed general foreign freight agent there, to replace **A. J. Schaab,** retired. **A. E. Wegner, Jr.,** assistant chief clerk, freight traffic department, Chicago, succeeds Mr. Carlin.

SEABOARD.—Guy Overstreet, general agent, Washington, named district manager freight sales there.

SOUTHERN PACIFIC.—T. W. Bellhouse, chief assistant superintendent, Mechanical Department, Houston, appointed superintendent of the department there, to succeed **H. J. Bowyer,** who retired Nov. 30 after more than 50 years of service.

Horace Shreve, advertising production manager, San Francisco, retired Nov. 30.

TERMINAL RAILROAD ASSN. OF ST. LOUIS.—Olyn R. Bailey, Jr., general superintendent, appointed vice president and general manager, succeeding **J. Hansford Sharp,** who became president Nov 1.

UNION PACIFIC.—John W. Godfrey, assistant to the president—industrial relations, also elected chief executive officer, Land Division, effective Jan. 1, succeeding **A. C. Ritter,** retiring.

U.S. DEPT. OF COMMERCE.—A. Scheffer Lang, director of operating data systems, **New York Central,** New York, appointed Deputy Under Secretary for Transportation Research, U.S. Dept. of Commerce, Washington, D.C.

VERMONT.—Harold T. Filskov appointed vice president and general manager, Burlington, Vt. Mr. Filskov was formerly vice president and general manager, **Raritan River,** South Amboy, N.J.

WESTERN PACIFIC.—George McDearmid appointed assistant freight pricing manager, and **Harold F. Hamilton,** assistant to freight pricing manager.

Supply Trade

George H. Billman has been promoted to general manager, **Lord Manufacturing Co.** and **J. R. Anderson** has been named to succeed him as manager of marketing. Mr. Anderson was formerly assistant manager of marketing.

Franklin S. Harris, vice president and treasurer, **Kerite Co.,** New York, has been named executive vice president. **Louis A. Flament,** secretary and chief accounting officer, has been named secretary-treasurer.

American Brake Shoe Co. (Abex) completed arrangements on Nov. 30 for the sale of the assets and business of its AmForge Division. **Arthur G. Tichenor,** former division president, is president of the newly formed **AmForge, Inc.,** which has purchased the business.

Leonard R. Heinlein has been named sales and service engineer, **Prime Manufacturing**

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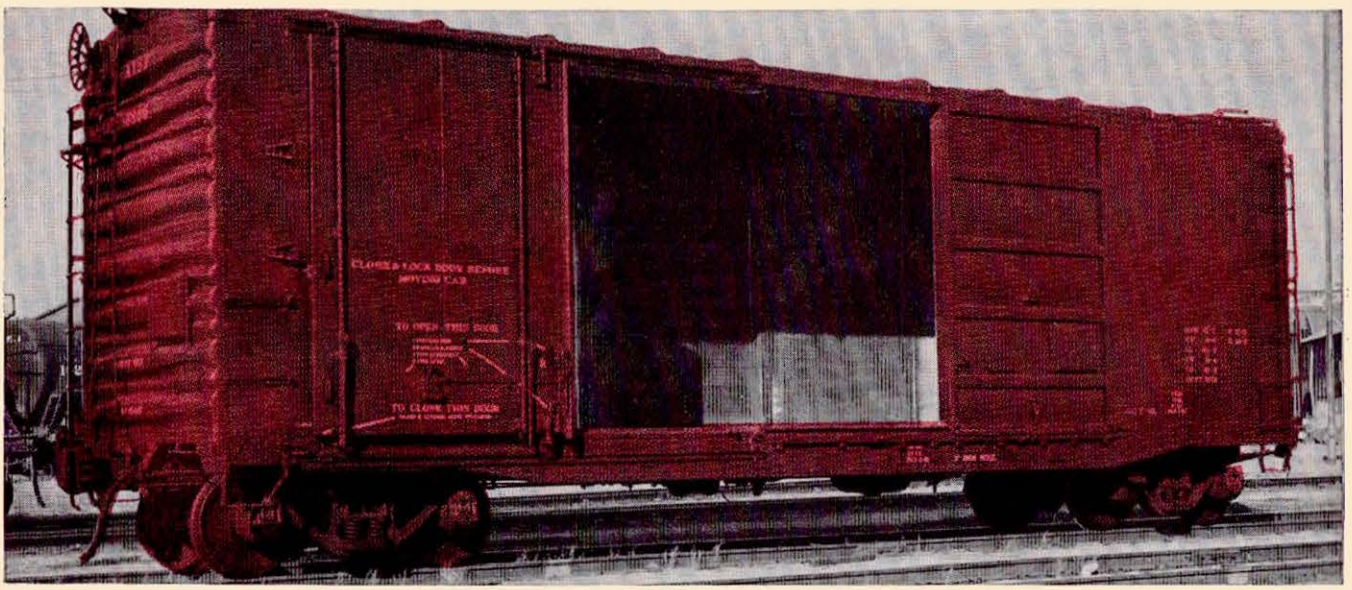

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RA-12-20/27

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George Christie has been appointed assistant vice president, **Consolidated Equipment Co.**, Montreal, Que., Canada.

Industrial Traffic

John T. Wright, manager, Traffic Rates and Research Department, **Continental Can Co.**, New York, has been appointed Pacific regional traffic manager, San Francisco, succeeding **R. A. Penk**, transferred to New York as manager of real estate activities.

Daniel T. Warner, Jr., has been appointed manager of transportation services, **American Steel Foundries**, Chicago. He was formerly central region traffic manager, **Universal Atlas Cement**, a division of United States Steel Corp.

Leland W. Birch, transportation engineer, **Ohio Brass Co.**, will retire Jan. 1 after 44 years of service.

Robert T. Lohman has been appointed transportation manager, **Armour Grocery Products Co.**, Chicago. He was formerly with Libby, McNeil & Libby.

R. A. Gosline, traffic representative, **Weyerhaeuser Co.**, Tacoma, Wash., has been appointed Western traffic manager—rates. **R. V. Caldwell**, supervisor of traffic department services, Tacoma, has been advanced to Western traffic manager—operations.

Richard A. Stuart, traffic manager, **Whitehall Laboratories**, New York, has been named assistant vice president—traffic and warehousing there.

Richard F. Hanley, assistant traffic manager of **Mattel, Inc.**, Hawthorne, Calif., has been appointed director of traffic, **S&W Fine Foods, Inc.**, San Francisco.

Hugh J. Owens, general traffic manager, **Wilson & Co.**, Chicago, retired Dec. 1, and has been succeeded by **John P. Zumwalt**, former traffic manager.

Cargill, Inc., has named seven new regional traffic managers: **George Birdsong**, Eastern region, Buffalo, N.Y.; **William Phippard**, Central region, Chicago; **Lyman Carlock**, Southern region, St. Louis; **Owen Smith**, Southwest region, Kansas City; **Richard Wank**, Northwest region, Minneapolis; **H. Claude Herington**, Pacific Northwest region, Portland, and **Don Mykleby**, California region, Sacramento.

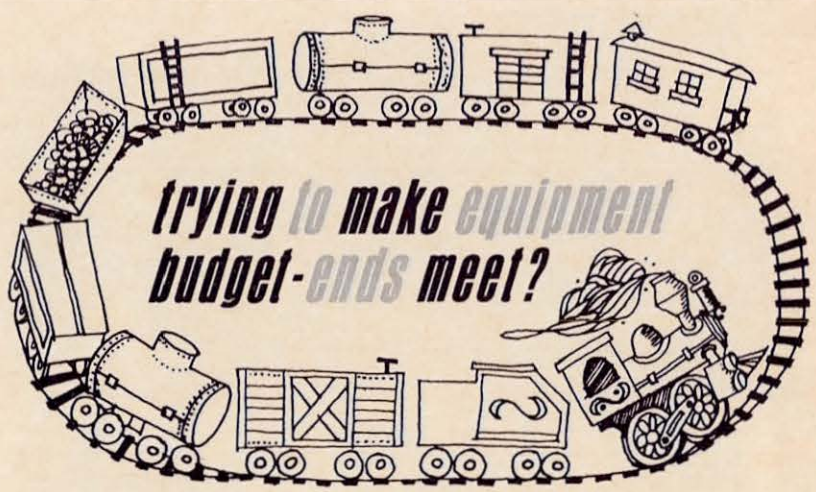
L. A. Parish has been appointed traffic manager, **Mobile Port Traffic Bureau**, effective Jan. 1, succeeding **E. C. Ash**, who retires Dec. 31.

Bruce J. Riggs, general traffic manager, **Behr-Manning division of Norton Co.**, Troy, N.Y., has been elected president, National Council of Physical Distribution Management.

OBITUARY

Fred E. Hewitt, 69, retired chief claim agent, **Nickel Plate**, died Dec. 11 at Cleveland, Ohio.

Rolla C. Parsons, 75, who retired in January 1957 as vice president, **Louisville & Nashville**, died Dec. 10 at Danville, Ky.



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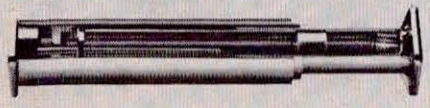

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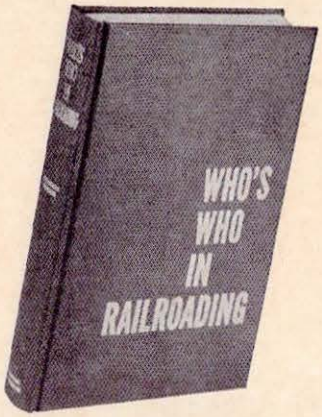

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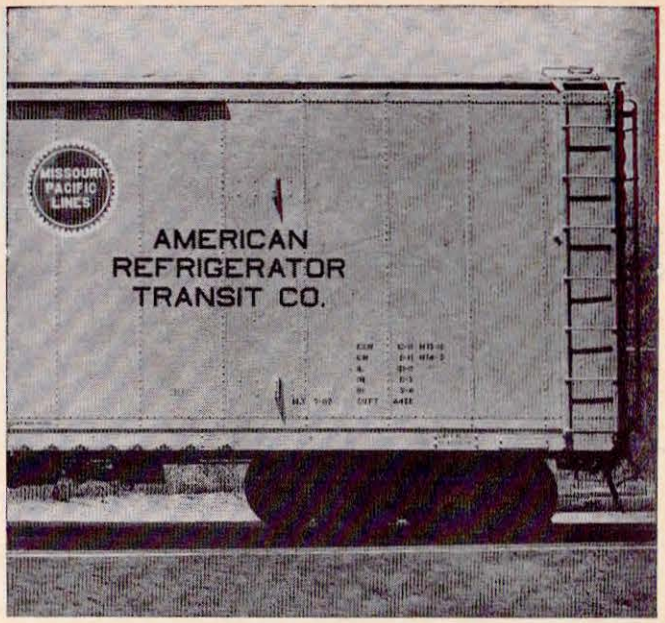

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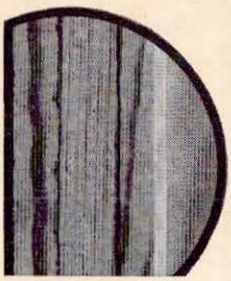

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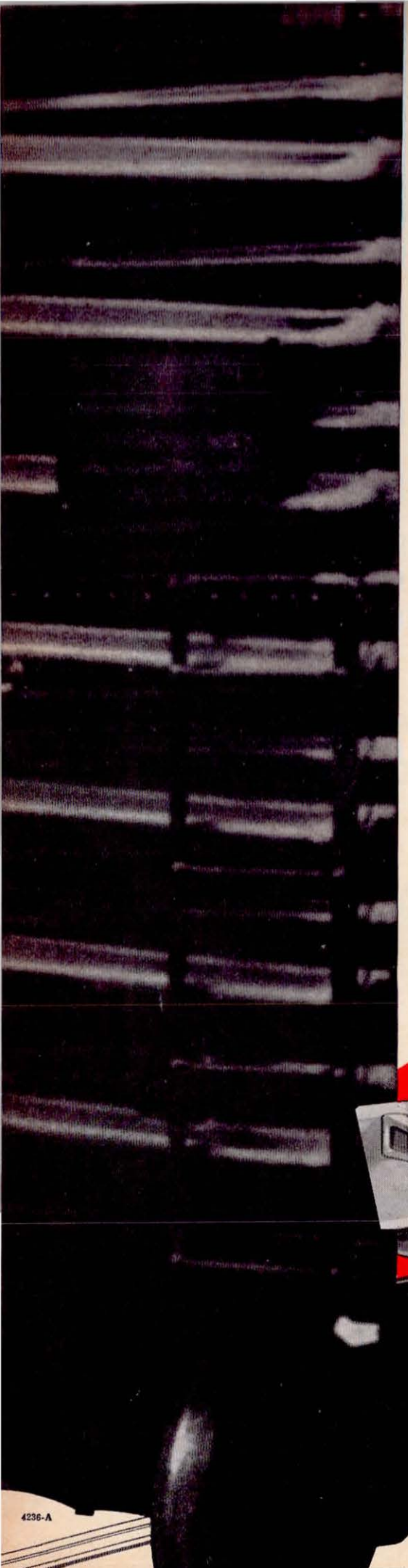

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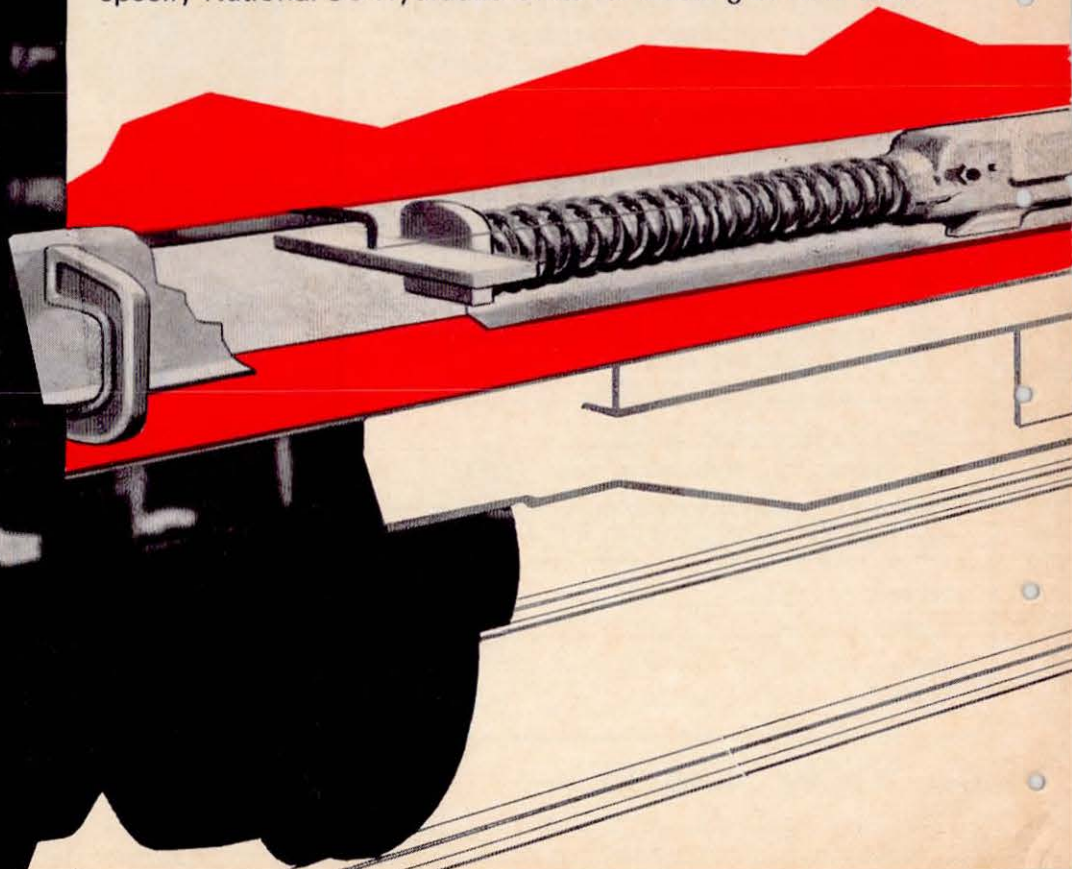

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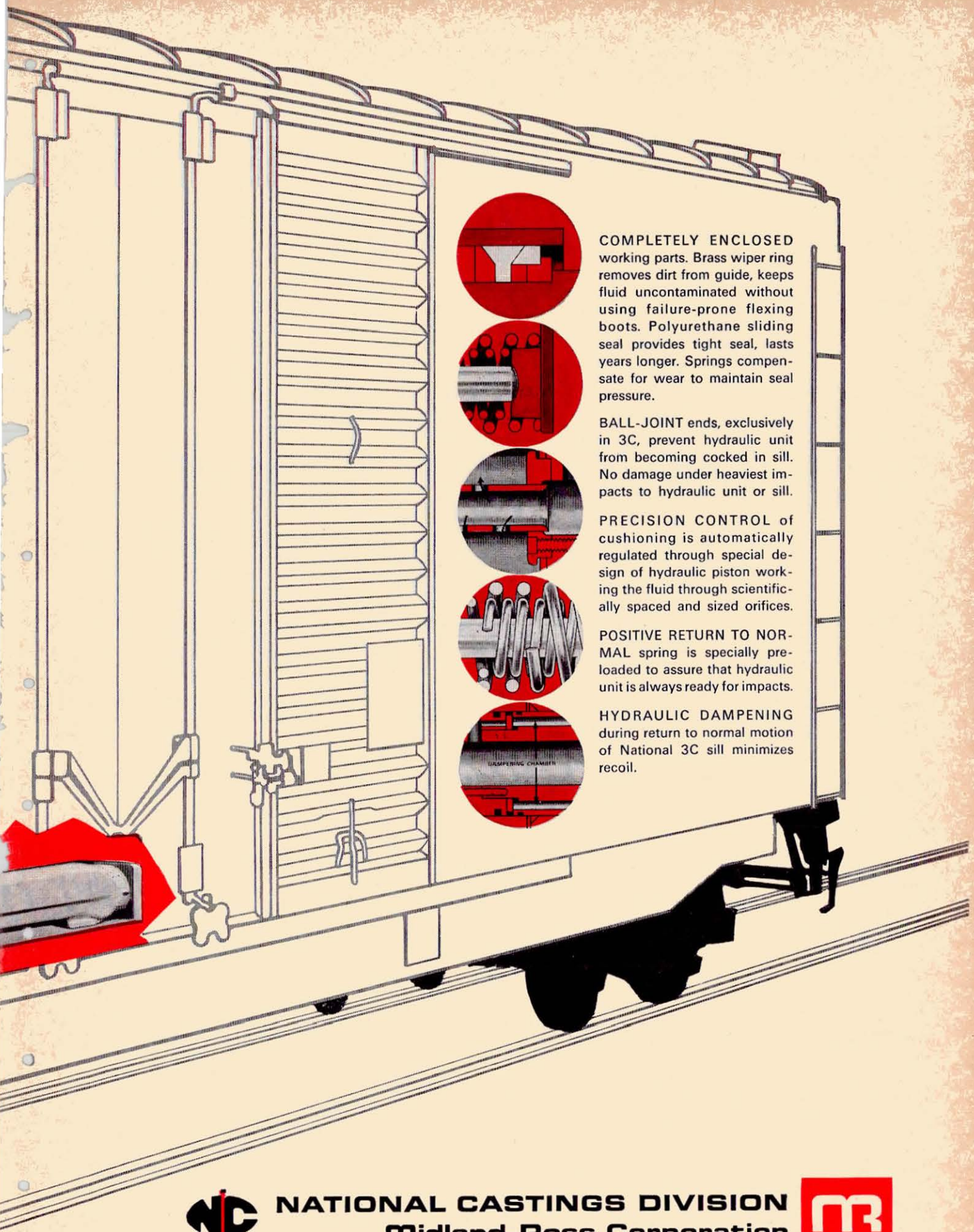


COMPLETELY ENCLOSED working parts. Brass wiper ring removes dirt from guide, keeps fluid uncontaminated without using failure-prone flexing boots. Polyurethane sliding seal provides tight seal, lasts years longer. Springs compensate for wear to maintain seal pressure.

BALL-JOINT ends, exclusively in 3C, prevent hydraulic unit from becoming cocked in sill. No damage under heaviest impacts to hydraulic unit or sill.

PRECISION CONTROL of cushioning is automatically regulated through special design of hydraulic piston working the fluid through scientifically spaced and sized orifices.

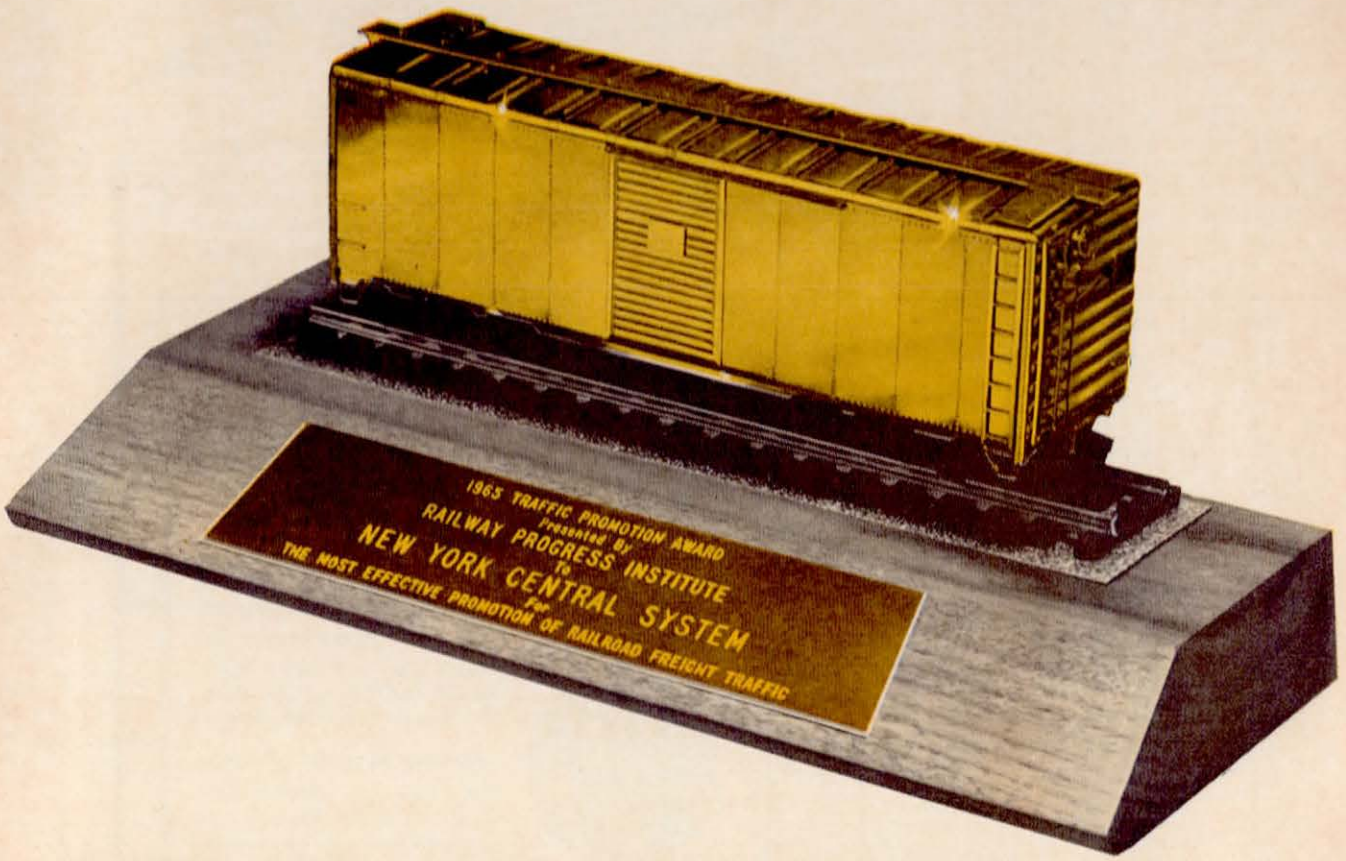
POSITIVE RETURN TO NORMAL spring is specially preloaded to assure that hydraulic unit is always ready for impacts.

HYDRAULIC DAMPENING during return to normal motion of National 3C sill minimizes recoil.

NATIONAL CASTINGS DIVISION
Midland-Ross Corporation

10600 QUINCY AVENUE, CLEVELAND, OHIO 44106
Circle 27 on reader service card

THANKS TO OUR CUSTOMERS...



for the GOLDEN FREIGHT CAR

The Golden Freight Car is the top award in the railroad transportation industry for the development and promotion of freight services. New York Central is proud to be the 1965 recipient of the award for one of its innovations—Flexi-Flo, a new rail-highway concept for handling bulk commodities which combines the low-cost, long-haul advantages of the railroad with the delivery flexibility of the truck.

The judges who selected Central's entry, and the Railway Progress Institute, sponsor of the award, are high on the list of those to whom Central's appreciation is directed. But highest on the list are our customers, for it is their acceptance and use of Flexi-Flo that accounts for its success.

Central makes a specialty of designing its services to meet customer needs. That's how it is with Flexi-Flo, designed to transport cement and now expanding to chemicals and other products.

Today, Central contributes to America's steady growth by fulfilling its vital role in the nation's economic and industrial life. For example, Central's **Industrial Development** specialists play an important part in the selection of site locations for many major companies. Development of new devices, methods, services and products is the job of Central's **Technical Research Center** near Cleveland. Giant computers aid Central customers by providing more accurate and more rapid information, while other computers help to speed freight trains more swiftly and more safely through huge, electronically controlled classification yards.

Versatile **Flexi-Van** carries freight, mail and express by rail, by road or by sea in the modern container way.

Multi-level rack cars speed new autos to market in three-mile-long trains. New **covered hopper cars** have been specially designed to improve the movement of grain from the Midwest to Eastern ports, and **solid unit trains** for hauling coal and ore on a shuttle basis have revolutionized the transportation of these important products.

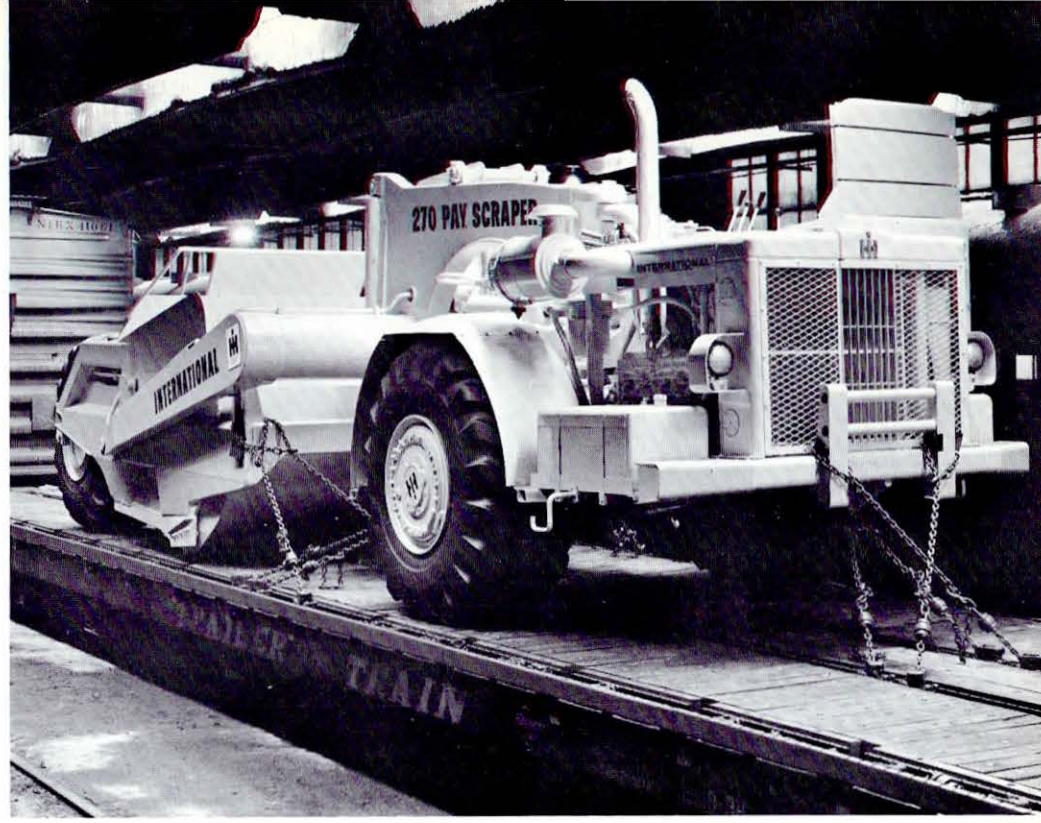
You'll find Progress Through Performance is a continuing practice with marketing-oriented New York Central.

NEW YORK CENTRAL SYSTEM

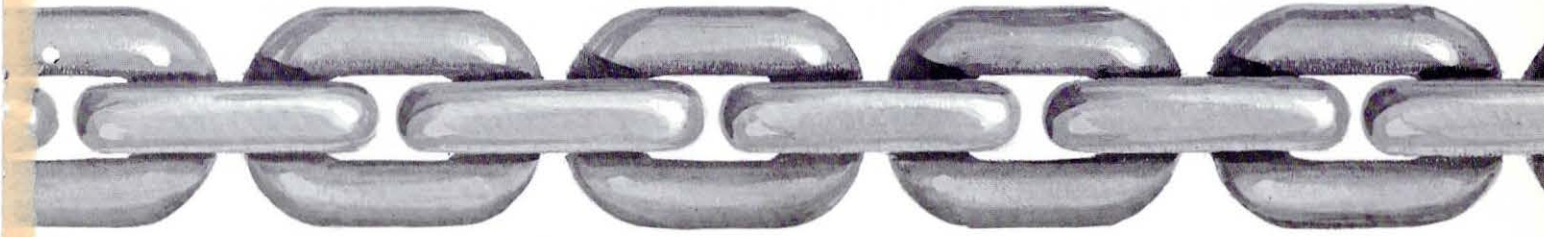
Circle 28 on reader service card

MAC LEAN-FOGG
PRESENTS

MF



LOAD SECUREMENT SYSTEMS

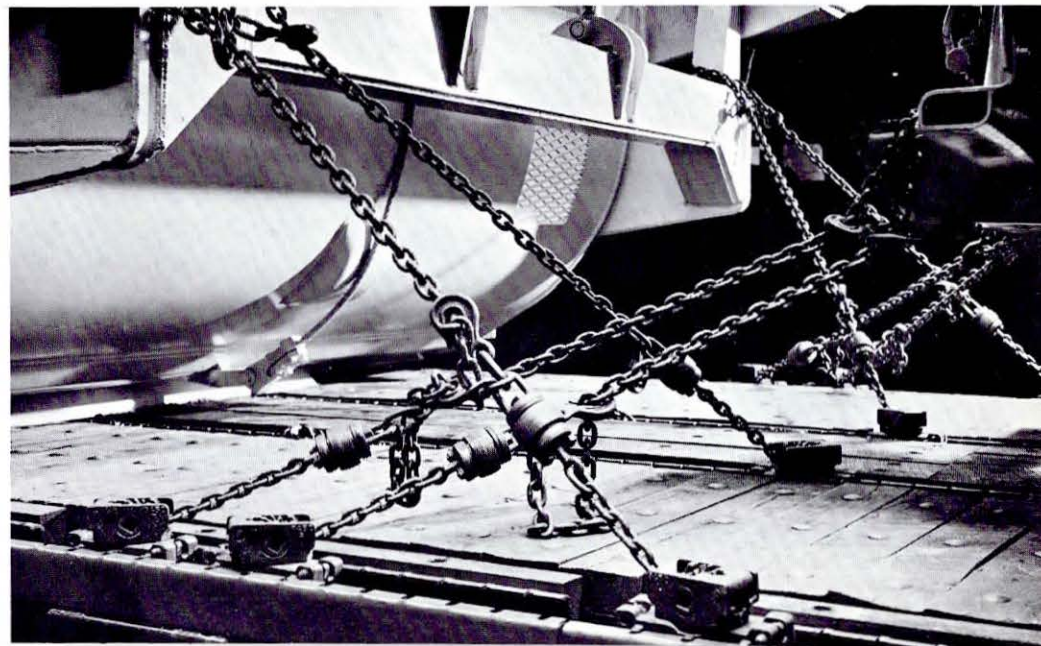


FOR AGRICULTURAL IMPLEMENTS AND TRACTORS, HEAVY VEHICLES, CONSTRUCTION EQUIPMENT

PATENTS APPLIED FOR

MF

RAILWAY
TIE-DOWN
HEADQUARTERS



There's an M-F SECUREMENT SYSTEM available for every type of load

LUMBER

Ship lumber by flat car and save handling charges. M-F has the tie-down system that makes it practical.

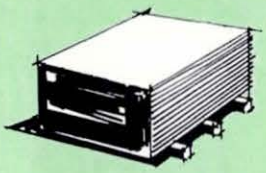
AUTOMOBILES

In cooperation with the Darby Corporation, Kansas City, Kansas, M-F offers the latest and finest in auto tie-down systems.

AUTO FRAMES

In bulky, hard to secure products, there is a best way to tie-down. Consult M-F.

The M-F agricultural load securement system described on these pages is but one of several specialized tie-down systems available from M-F. Though the implement system is amazingly versatile and is applicable to many different types of load, however, on occasion there is need for special equipment to handle special loads. Space does not permit detailed explanations of all these systems here, but whether your car must carry lumber, automobiles, wall board, or auto frames, you are well advised to consult M-F. Remember that MacLean-Fogg is "Railway Tie-Down Headquarters."

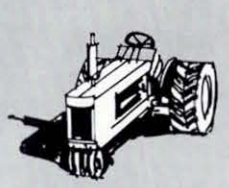


WALL BOARD

Secure it safely, economically, with the hardware specially designed for wallboard and plywood.

PIPE AND TUBING

For faster loading, faster unloading, and total safety in transit, use the M-F pipe tie-down system.



TRACTORS, FARM MACHINERY

The agricultural implement system described on the preceding pages is the ultimate tie-down for this valuable type of load.

RAILWAY M F FASTENING HEADQUARTERS

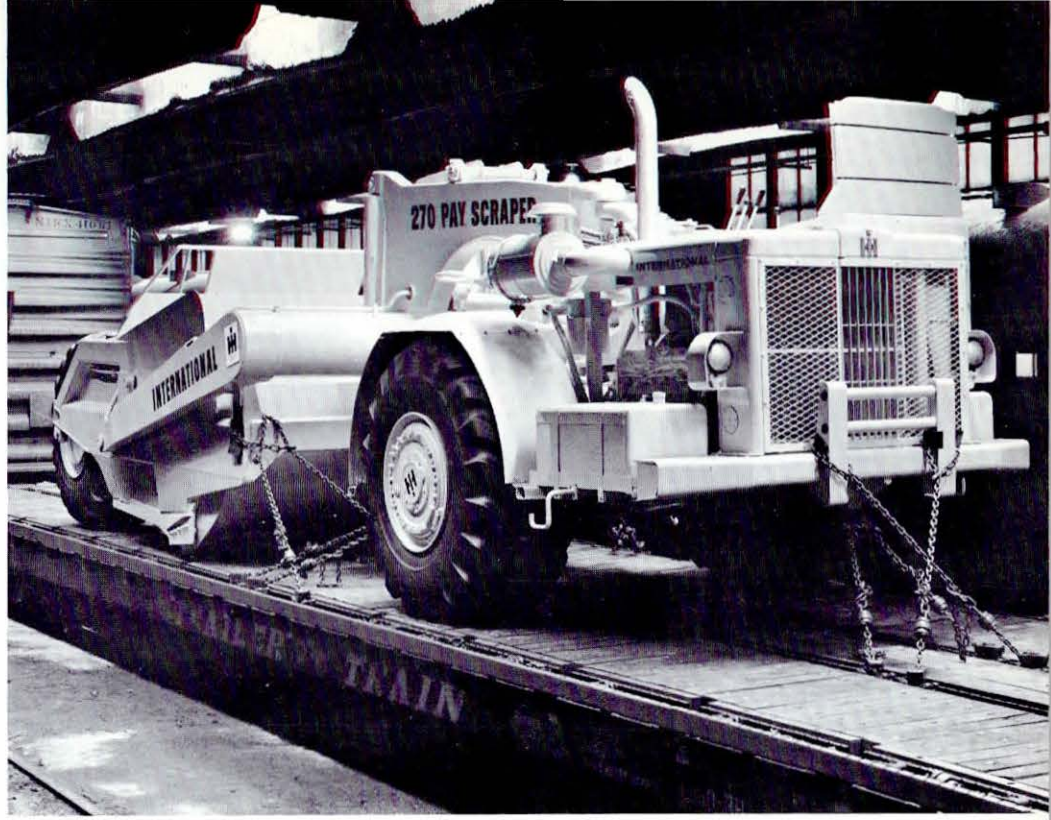
LOCK NUTS, BOLTS, FLOOR CLIPS, LADING ANCHORS, LOAD SECUREMENT SYSTEMS

MACLEAN-FOGG LOCK NUT COMPANY

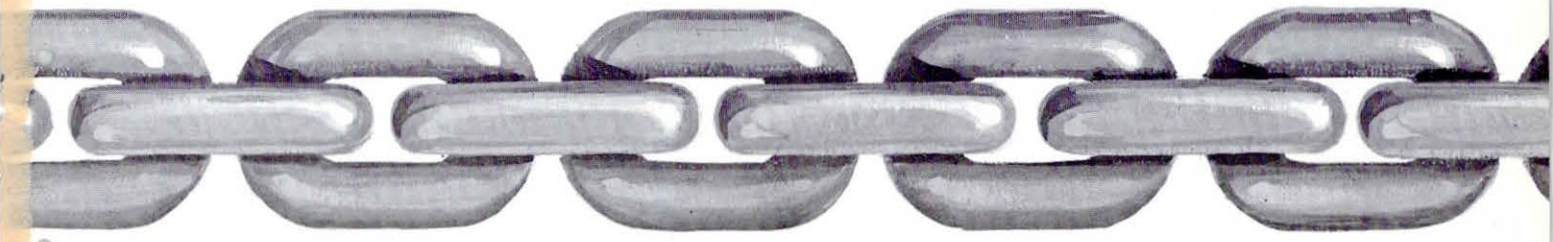
1000 ALLANSON ROAD
MUNDELEIN, ILLINOIS 60060
TELEPHONE: 312/566-0010

IN CANADA: THE HOLDEN COMPANY, LTD., MONTREAL

MAC LEAN-FOGG
PRESENTS



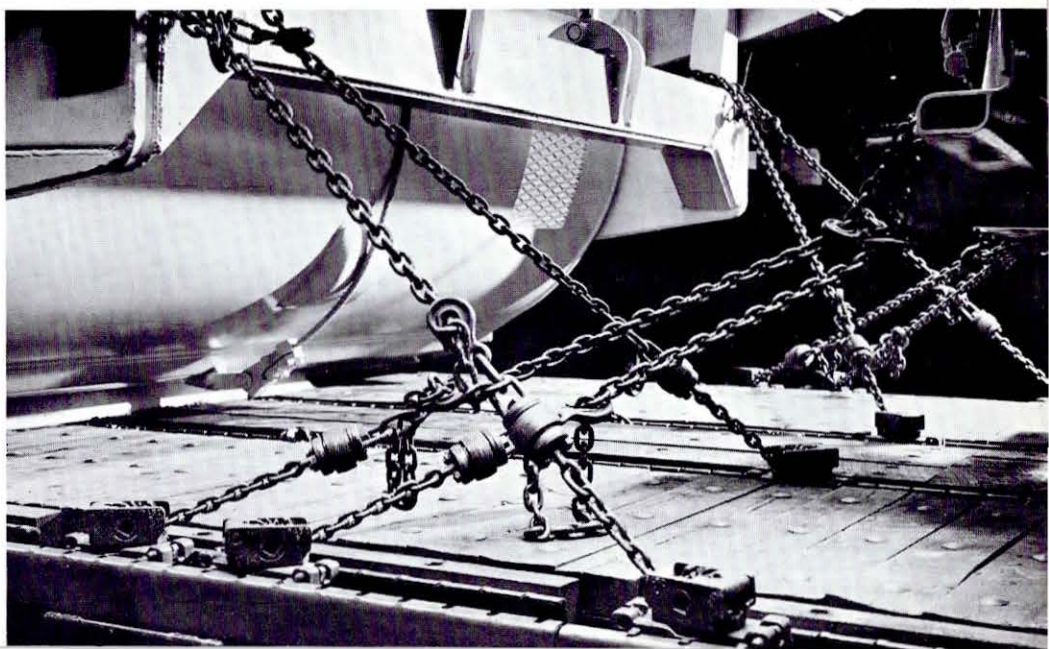
LOAD SECUREMENT SYSTEMS



FOR AGRICULTURAL IMPLEMENTS AND TRACTORS, HEAVY VEHICLES, CONSTRUCTION EQUIPMENT

PATENTS APPLIED FOR

RAILWAY
TIE-DOWN
HEADQUARTERS



LOAD IT . . . SECURE IT . . . FORGET IT

WITH

M-F IMPLEMENT LOAD SECUREMENT SYSTEM

This brochure describes the new M-F load securement system for agricultural equipment, machines, and heavy vehicles. This system was developed and engineered to provide maximum versatility in securement of a wide variety of loads safely and with a minimum number of anchors. Loading and unloading time is dramatically reduced.

Farm and Industrial Equipment Institute approved: "MacLean-Fogg Winch more than adequately meets the requirements and recommendations of FIEI insofar as the securement of agricultural implements and tractors when loaded on railroad flat cars is concerned."

HOW IT WORKS: The MF system is the simplest yet devised. It incorporates four identical channels that run the length of the car. In these channels are placed the revolutionary M-F 360° Retractable Winches. The winch and chain assembly can be positioned and operated at 3" intervals along the channel or stored in the channel below deck level when not in use. The winches are designed to rotate a full 360° so that the tie-down chain is always in a straight line with the winch.

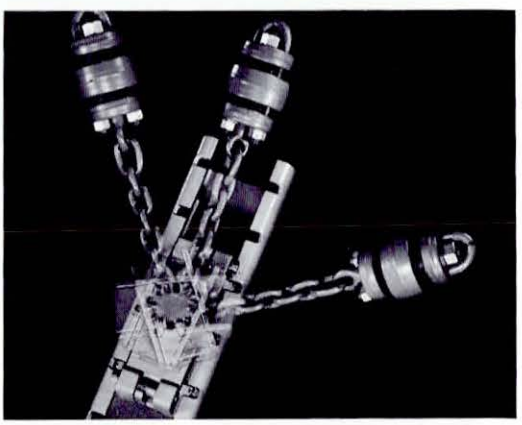
The M-F Winch accommodates chain up to 18,000 proof test. Attached to each chain is an M-F Compression Unit that maintains a taut and resilient chain assembly during transit. The railroad, the car builder, and the shipper have all applauded the simplicity of the M-F system. Consider the advantages:

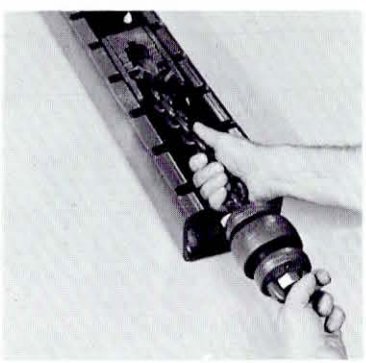
1. Four tracks, all alike.
2. All winches identical, and able to operate a full 360°.
3. Simplified installation and stocking of winches.
4. Top or bottom of channel winch positioning to insure all-weather versatility.
5. Improved compression units.
6. Faster loading and unloading.
7. Rugged, simple top channel locking mechanism.
8. Full interchangeability of parts.

WINCH 360° LOADING

USED THROUGHOUT THE CAR

The key to the M-F Implement System is the revolutionary new Winch with its 360° swivel top. Chain can be extended from this winch in any direction and any vertical angle. This means the shipper can now secure his load in minimum time without any binding, kinking, or other strain at the winch anchor point. Chain is winched tight by means of a conventional ratchet wrench with 3/4" square male drive. These winches are positioned in four identical channels that run the length of the car; two channels outboard and two inboard.



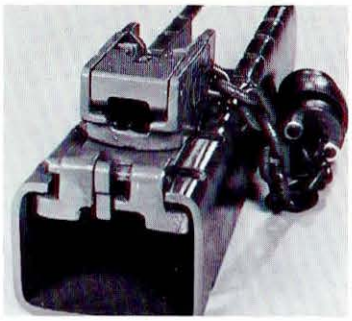


WINCH MOVEMENT

To move a winch, the user will pull it along the bottom of the channel to the desired position. If snow or ice or dirt in the channel should make this kind of movement impractical, the winch can be moved in its up position, and locked wherever it is needed.

WINCH LOCKING . .
POSITIVE, FAST

When the winch has been moved into the desired position and raised so the protruding lugs in the winch fit into the notches in the channel, then two rugged levers located at each end of the winch can be moved to fasten the entire winch-channel mechanism firmly in place.

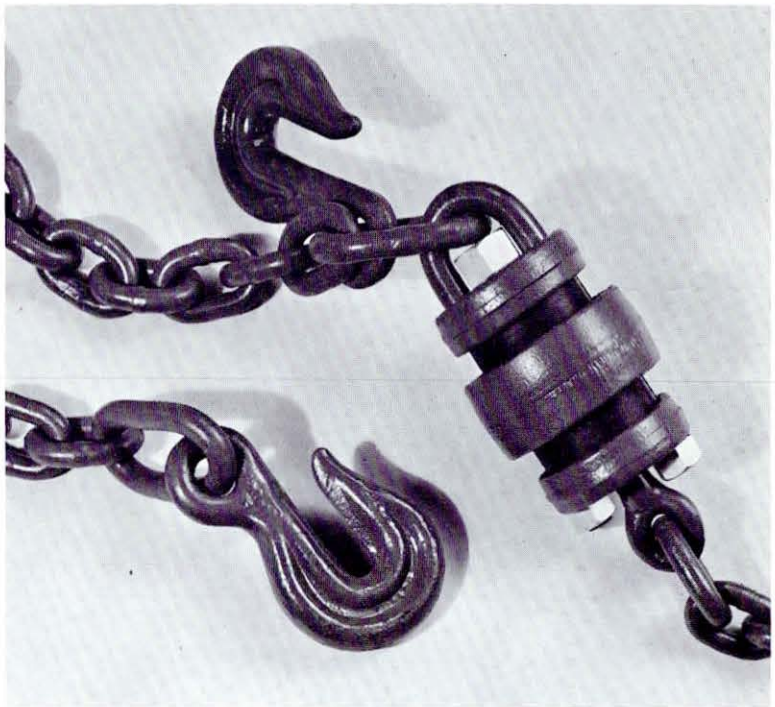


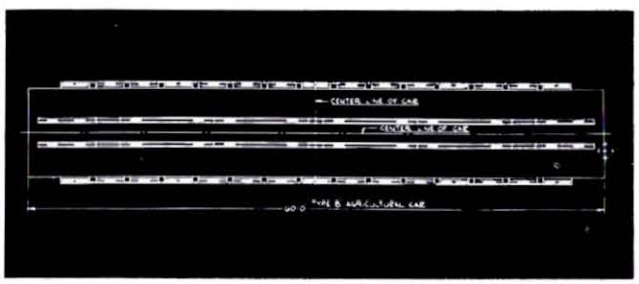
CHAIN AND COMPRESSION UNIT ASSEMBLY

The M-F Alloy Chain and Compression Unit Assembly has a guaranteed proof test of 18,000 lbs. and an ultimate strength in excess of 27,000 lbs. When these high strength assemblies are used throughout the car, impact tests have shown the M-F winch and alloy chain assembly to be unsurpassed in the economical and safe securement of the widest variety of loads.

The M-F Compression Unit is specifically designed with an increased bearing area of rubber to provide optimum stiffness and greater shock absorption. The rubber pieces are encapsulated in tapered containers, to insure that permanent damage to the unit is avoided under all load conditions.

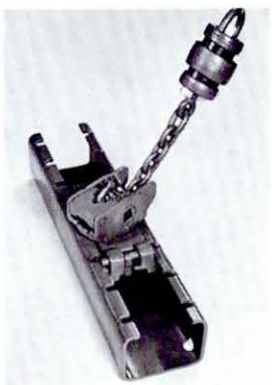
The design insures a taut, resilient chain system, as well as making for simplified tightening and release of the ratchet mechanism.





STANDARD WINCH AND CHANNEL

One type of winch and channel is specified for all locations, eliminating the need for inboard and outboard, right and left hand winches that complicate the problems of replacement and installation. As the M-F winches and channels are all alike - it is easy to move winches from one place to another on the car. Sixty-four winches are standard for the M-F Implement System - 20 winches in each of the outboard channels and 12 winches in each of the inboard channels.



SPECIAL APPLICATIONS

For those cars not requiring deep channels with fully retractable winches, a special shallow channel can be provided. This is often used for saddleback truck loading, over the bolster applications, or in any location where car construction does not permit a deep channel.

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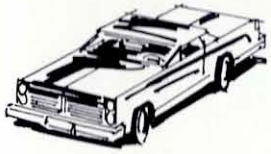
LUMBER

Ship lumber by flat car and save handling charges. M-F has the tie-down system that makes it practical.



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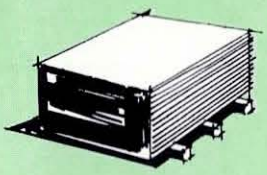

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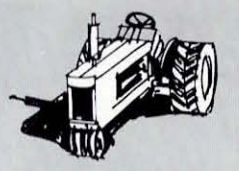

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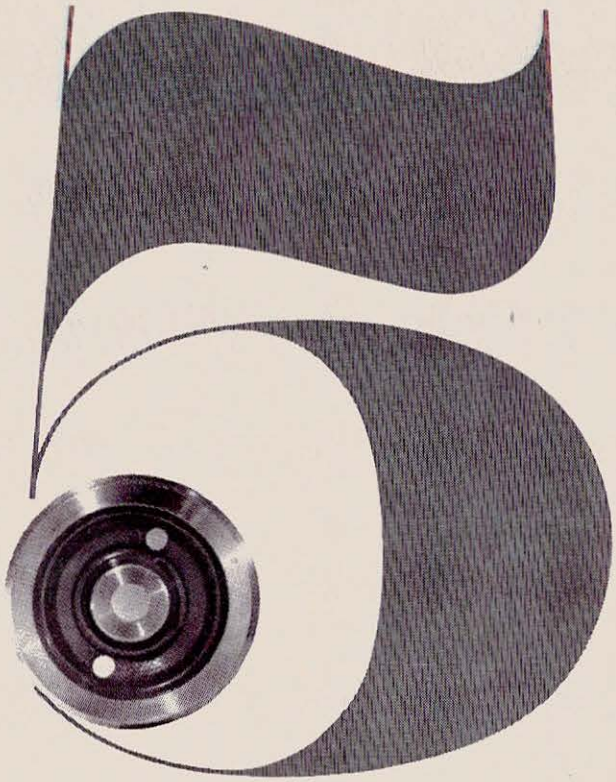
RAILWAY M F FASTENING HEADQUARTERS

LOCK NUTS, BOLTS, FLOOR CLIPS, LADING ANCHORS, LOAD SECUREMENT SYSTEMS

MAC LEAN-FOGG LOCK NUT COMPANY

1000 ALLANSON ROAD
MUNDELEIN, ILLINOIS 60060
TELEPHONE: 312/566-0010

IN CANADA: THE HOLDEN COMPANY, LTD., MONTREAL



5 REASONS WHY THE WORLD ROLLS ON SUMITOMO WHEELS

1. Quality. Sumitomo wheels and other rolling stock parts are unsurpassed for quality. Sumitomo guarantees it. Our's are the strictest quality controls in the industry.

2. Dependability. Wheels are solid rolled for safety, longer life, lightness, and ease of repair.

3. Choice. Sizes from 550mm to 1,300mm.

4. Availability. Our fully automated plant turns out rolling stock parts to your specifications faster than any other producer can. Nobody delivers faster than Sumitomo. And Sumitomo wheels can be made to conform to any National Standard. Yours included.

5. Price. Sumitomo rolling stock parts are made at the world's largest wheelmaking plant. The equipment is up-to-the-minute modern and fully automated. This means we save money in production. You will find these savings in our prices. Check them before you buy.

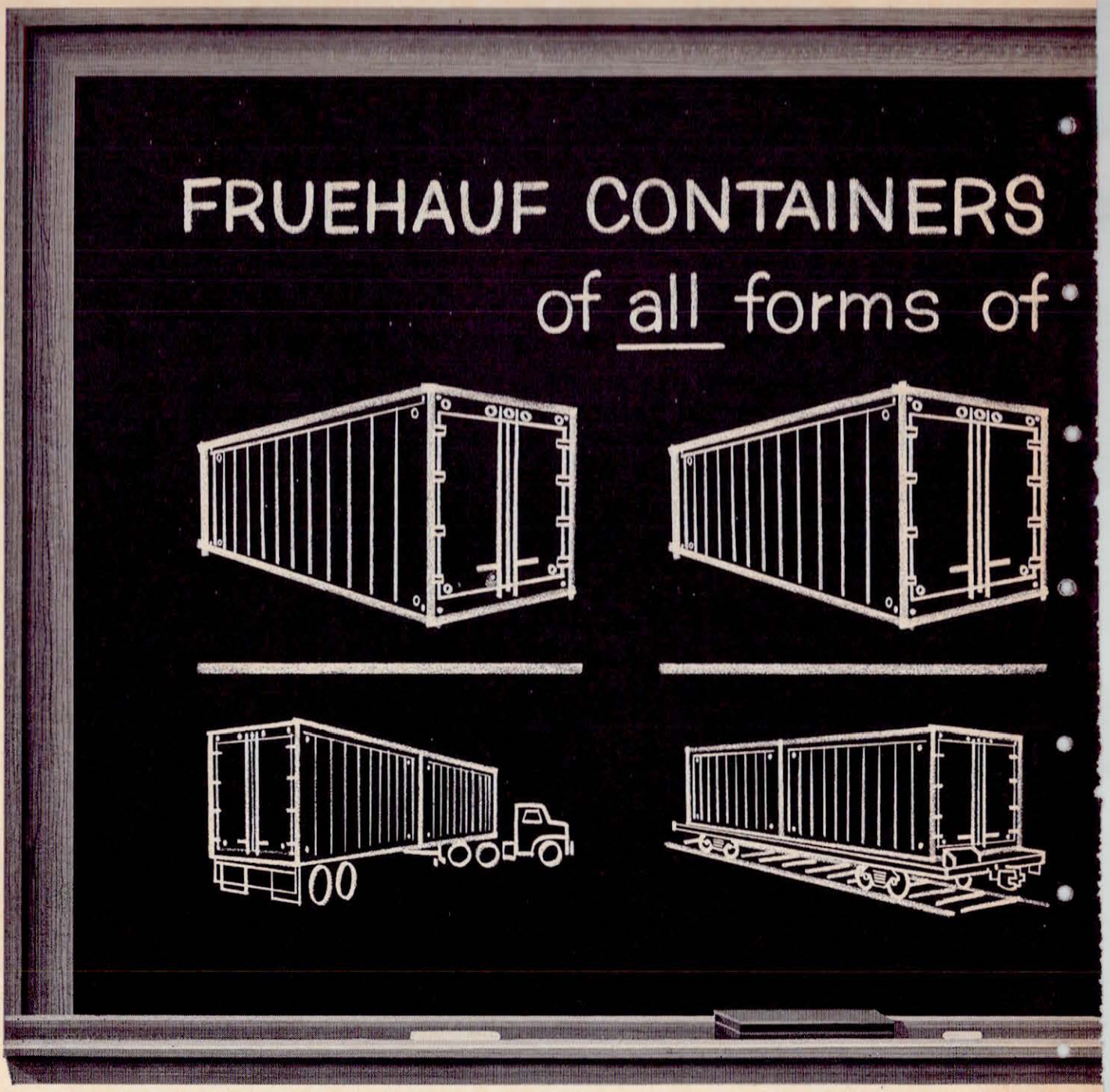
These are the reasons why you most probably rode on Sumitomo wheels the last time you rode a train or streetcar.

For more information about Sumitomo's rolling stock parts, write to Sumitomo Metal Industries, Ltd., Higashi-ku, Osaka, Japan. Overseas Offices: New York / Los Angeles / Düsseldorf / Bangkok

SUMITOMO METALS
SUMITOMO METAL INDUSTRIES, LTD., OSAKA, JAPAN

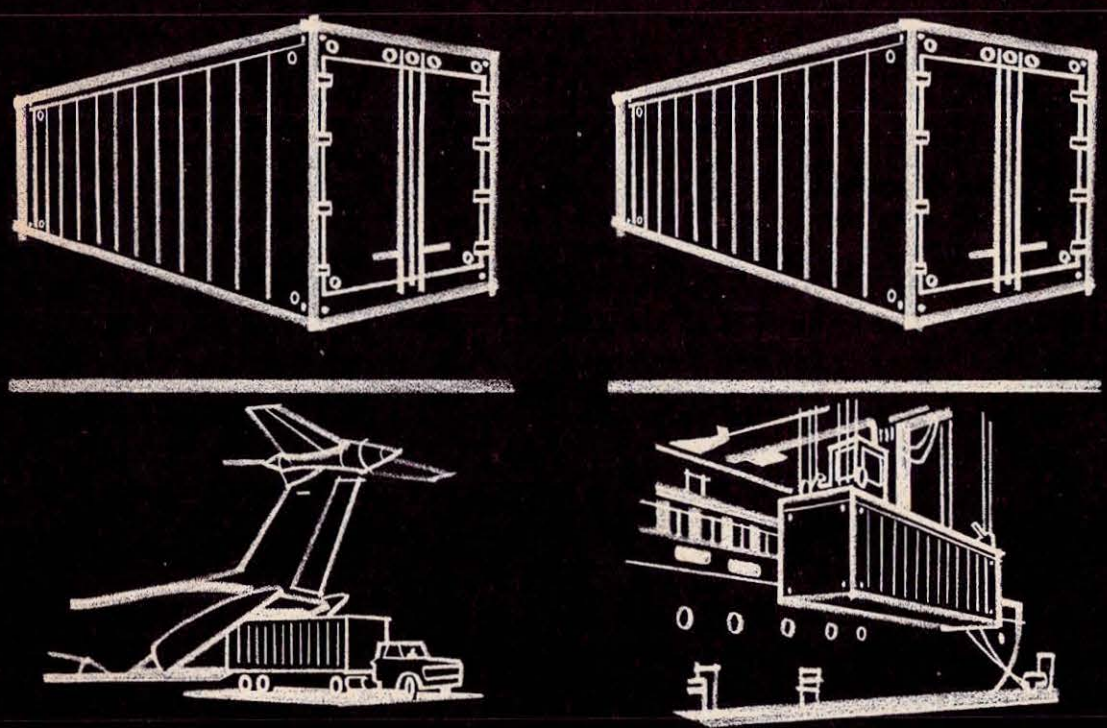
Main Products: Wire Rods / Sheets and Plates / Tubes and Pipe / Castings / Forgings / Rolling Stock Parts

Circle 30 on reader service card



Efficiency UP! Transportation costs DOWN! . . . Yes, handling costs, inventory costs, insurance costs, delivery costs, breakage costs, pilferage costs, all come down when you deliver the goods in durable, lightweight Fruehauf Containers. Available in a wide variety of sizes and shapes—to handle just about every commodity imaginable—versatile Fruehauf Containers are equally at home on road, rail, sea or in the air. So, when you are looking for ways to improve your competitive position, look to Fruehauf—the pace-setter in the transportation industry. . . . Let your Fruehauf representative show you in detail, the many cost-cutting advantages that Fruehauf Containers offer you! **Fruehauf Division, Fruehauf Corporation, 10942 Harper Avenue, Detroit, Michigan 48232.**

offer you the advantages
transportation!



RUEHAUF
CONTAINERS
Warehousing in Motion

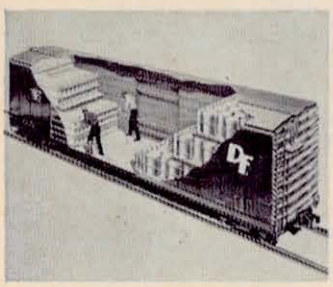
Leadership in ENGINEERED TRANSPORTATION Since 1914

Circle 31 on reader service card

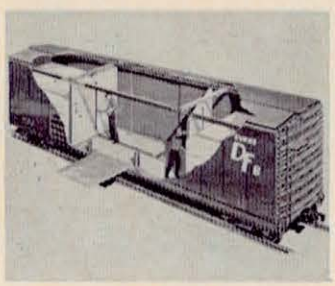
EVANS expands service to

First, car and lading protection...

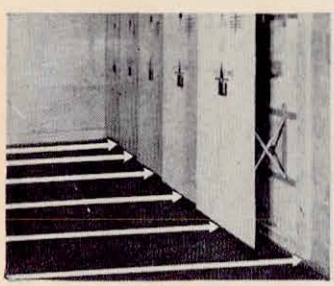
Since 1915, Evans Products Company has been the nation's leading designer and manufacturer of equipment specially developed to prevent damage to railroad freight cars and to lading of every type.



Evans DF® Loader

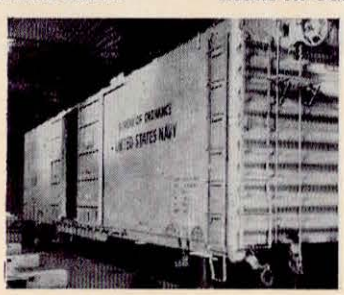


Evans DF®-B Bulkheads



Evans Sidewall Fillers

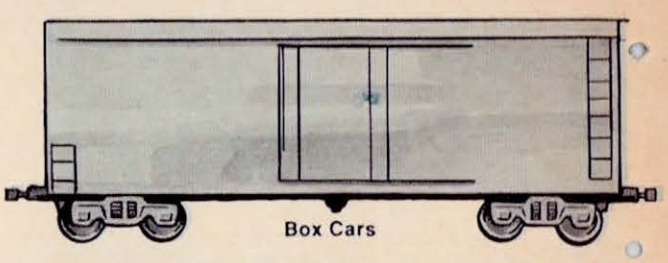
Evans Hi-Cube Bulkhead



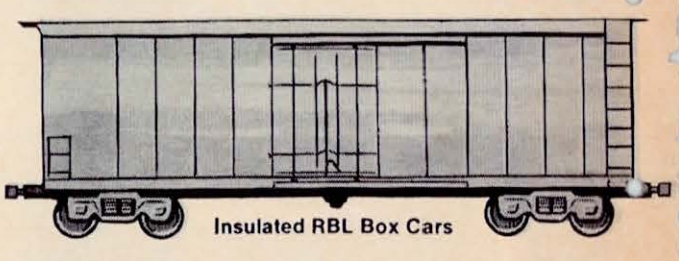
Evans Hydra-Cushion** Conversions

Then, car construction, components, upgrading...

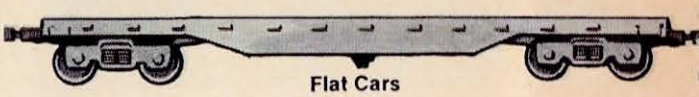
Evans entered the car-building field in September, 1964. With acquisition and expansion of the Blue Island, Illinois plant, and expansion of the Plymouth, Michigan plant, Evans car building capacity will triple.



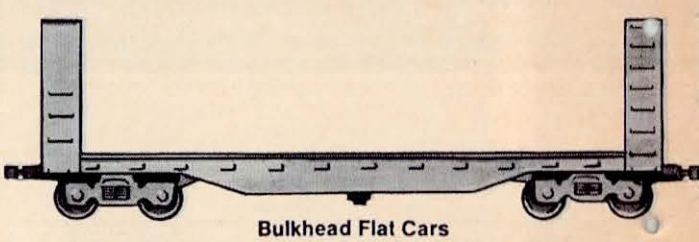
Box Cars



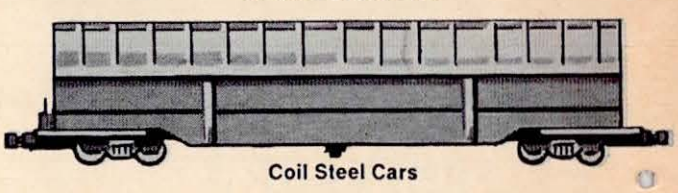
Insulated RBL Box Cars



Flat Cars



Bulkhead Flat Cars



Coil Steel Cars

railroads and shippers

And now, car leasing, car doors and brake beams...

with the acquisition of these well known companies:

–U.S. Railway Equipment Co.
–Chicago Railway Equipment Co.*

With expansion of facilities and these latest acquisitions, Evans is the only supplier now in a position to offer these complete freight car services to railroads and shippers:

- **Freight car leasing.**
- **Freight car doors.**
- **Brake beams.**
- **Freight car building.**
- **Car underframes and sides.**
- **Reconditioning, upgrading and stretchout service.**
- **Damage prevention equipment.**
- **Conversion to Hydra-Cushion** Underframes.**

If you want to buy new or used freight cars, if you want to lease new or used freight cars, or if you want to equip freight cars, we'd appreciate the opportunity to quote on your requirements.

*Division of AMK Corp. (Brake beam and car door operation)
**Reg. T.M. of Hydra-Cushion, Inc.

evans

TRANSPORTATION EQUIPMENT DIVISION

Plymouth, Michigan. Canadian Rep., International Equip. Co., Montreal

Circle 32 on reader service card

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands: i.e., with last three digits omitted)

Third Quarter and Nine Months' Figures of Calendar Year 1965

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1965	1964	Operating Expenses: Maint. Way and Structures: Total 1965	Total 1964	Deprec. and Retirements	Maint. Equipment: Total 1965	Total 1964	Deprec. and Retirements	Traffic	Transportation	Total 1965	Total 1964	Operating ratio 1965	1964	Net from railway operation	Railway tax accruals	Net Railway operating income 1965	1964
Akron, Canton & Youngstown	3 mos.	171	1,715	....	1,754	1,708	264	209	18	280	277	82	115	590	1,348	1,317	76.9	75.8	406	138	224	138
	9 mos.	171	4,979	....	5,126	4,788	648	531	55	854	815	243	349	1,738	3,892	3,724	75.9	76.7	1,234	542	657	471
Atchison, Topeka & Santa Fe	3 mos.	12,984	139,014	12,450	167,344	161,611	23,867	22,144	2,501	31,651	33,380	8,834	4,454	60,199	130,602	128,960	78.0	79.8	36,742	14,253	18,915	17,358
	9 mos.	12,984	400,830	30,236	476,838	477,189	64,814	62,105	7,273	94,051	98,293	27,517	13,724	177,322	376,744	376,073	79.0	78.8	100,093	43,126	51,629	52,167
Atlantic Coast Line	3 mos.	5,721	39,912	3,314	46,213	42,879	4,934	4,690	584	8,539	8,037	2,713	1,869	18,502	36,453	34,450	78.9	80.3	9,760	3,575	3,819	3,191
	9 mos.	5,721	128,974	11,268	149,998	139,083	16,869	15,401	1,732	26,304	24,746	7,879	5,924	58,054	115,350	108,040	76.9	77.7	34,627	11,750	13,514	11,956
Baltimore & Ohio	3 mos.	5,743	92,769	2,873	102,230	96,013	12,469	13,195	604	14:421	13,736	2,596	2,498	38,775	75,293	72,877	73.7	75.9	26,937	6,408	8,743	5,102
	9 mos.	5,744	273,012	8,007	299,932	285,074	34,641	37,344	3,484	45,999	45,195	7,717	8,067	117,171	224,394	218,102	74.8	76.5	75,538	19,355	22,537	16,077
Bangor & Aroostook	3 mos.	544	2,315	87	2,449	2,269	547	597	68	967	923	399	95	850	2,711	2,610	110.7	115.0	—262	274	171	470
	9 mos.	544	10,525	207	10,925	9,907	2,448	2,275	202	2,971	2,777	1,193	264	3,209	9,621	9,035	88.1	91.2	1,304	828	1,859	1,490
Bessemer & Lake Erie	3 mos.	202	8,210	....	8,308	8,201	972	726	107	1,260	2,355	123	152	1,597	4,498	5,159	54.1	62.9	3,810	2,292	2,214	1,563
	9 mos.	202	21,481	....	21,798	20,599	2,371	1,901	307	4,479	5,456	595	417	4,539	13,238	13,365	60.7	64.9	8,560	5,752	5,390	4,159
Boston & Maine	3 mos.	1,527	12,376	1,022	15,218	14,499	1,806	1,709	442	1,960	2,072	683	316	6,552	11,425	11,840	75.1	81.7	3,793	1,026	1,577	189
	9 mos.	1,527	38,899	2,988	47,428	46,171	5,511	5,496	1,308	6,268	6,562	2,074	999	20,599	35,892	37,165	75.7	80.5	11,536	3,438	4,113	1,279
CPR Lines in Maine	3 mos.	234	1,032	149	1,252	1,098	321	319	59	209	183	54	47	398	1,075	1,008	85.9	91.8	176	83	—104	—185
	9 mos.	234	5,316	316	5,821	5,044	876	907	177	891	730	162	130	1,524	3,755	3,447	64.5	68.3	2,066	248	956	574
Central of Georgia	3 mos.	1,744	10,826	379	11,668	10,805	3,490	2,760	325	2,388	2,445	682	450	4,560	11,760	11,186	100.8	103.5	—92	Cr.27	—629	—235
	9 mos.	1,744	33,117	993	35,668	33,305	8,923	8,957	611	7,188	8,012	2,018	1,318	13,377	33,225	34,953	93.1	104.9	2,443	872	221	—653
Central RR Co. of New Jersey	3 mos.	576	10,398	1,257	12,806	12,402	1,408	1,394	371	2,139	2,284	467	335	6,570	11,173	11,151	87.2	89.9	1,633	1,263	—664	—899
	9 mos.	576	30,198	3,778	38,005	36,139	4,076	4,244	941	6,627	7,317	1,216	949	19,637	33,484	33,895	88.1	93.8	4,521	4,065	—2,623	—4,353
Central Vermont	3 mos.	382	1,729	152	2,035	2,126	496	475	54	224	260	24	55	1,066	1,982	1,889	97.4	88.9	53	175	—464	—235
	9 mos.	382	5,629	355	6,449	6,603	1,526	1,423	163	829	836	74	161	3,064	5,925	5,660	91.9	85.7	524	509	—964	—506
Chesapeake & Ohio	3 mos.	5,119	91,614	1,508	99,455	94,095	10,500	10,900	1,586	16,980	17,186	6,312	2,478	37,508	73,493	72,190	73.9	76.7	25,962	11,052	13,832	14,133
	9 mos.	5,119	271,967	4,019	291,790	275,860	31,500	32,400	4,616	53,026	51,823	18,957	7,402	113,332	223,563	213,755	76.6	77.5	68,227	29,922	37,266	41,091
Chicago & Eastern Illinois	3 mos.	862	8,580	465	9,892	9,808	1,325	1,375	103	1,683	1,427	522	367	3,809	7,841	7,553	79.3	77.0	2,051	663	349	693
	9 mos.	862	25,812	1,170	29,656	28,026	3,502	3,564	327	4,570	4,647	1,541	1,117	11,542	22,700	22,373	76.5	79.8	6,956	1,873	2,378	1,463
Chicago & Illinois Midland	3 mos.	121	1,743	....	1,792	2,086	132	130	22	262	365	81	78	456	1,074	1,214	60.0	58.2	717	439	212	358
	9 mos.	121	5,790	....	5,911	6,855	391	368	64	840	1,215	242	248	1,390	3,314	3,831	56.1	55.9	2,597	1,473	819	1,269
Chicago & North Western	3 mos.	10,322	52,638	4,706	59,517	57,086	9,179	10,202	1,331	8,979	9,111	2,257	1,784	22,417	45,306	46,493	76.1	81.4	14,210	4,047	4,737	3,479
	6 mos.	10,377	150,669	13,479	171,339	163,466	26,094	27,473	3,903	27,326	28,292	8,963	5,498	67,087	135,005	136,078	78.8	83.2	36,334	11,893	10,157	6,848
Chicago, Burlington & Quincy	3 mos.	8,546	55,773	6,444	69,123	67,737	9,850	10,500	1,299	12,962	13,296	4,161	2,137	28,287	56,856	57,256	82.3	84.5	12,267	6,222	4,622	4,446
	9 mos.	8,546	162,180	15,825	197,945	195,929	27,265	27,963	3,792	38,518	37,347	12,311	6,559	83,347	166,145	160,404	83.9	81.9	31,801	16,286	11,885	16,479
Chicago Great Western	3 mos.	1,458	7,538	16	7,924	7,872	1,211	1,071	137	1,269	1,358	424	361	2,967	6,123	6,081	77.3	77.2	1,801	612	231	366
	9 mos.	1,458	21,821	44	23,137	23,704	3,177	3,224	442	3,983	4,194	1,254	1,110	8,785	18,017	18,076	77.9	76.3	5,120	1,807	666	1,519
Chic., Milw. St. Paul & Pacific	3 mos.	10,514	53,282	3,750	63,896	59,614	8,828	7,814	1,396	9,196	8,851	2,858	1,699	25,728	49,402	47,504	77.3	79.7	14,494	5,052	4,906	3,686
	9 mos.	10,525	147,965	9,354	176,934	169,310	23,622	23,352	3,927	27,447	27,468	8,594	5,058	74,816	142,790	138,570	80.7	81.8	34,144	14,960	7,836	7,706
Chicago, Rock Island & Pacific	3 mos.	7,793	45,164	3,108	52,807	50,780	7,539	7,280	784	8,523	8,835	2,144	1,627	22,457	43,490	42,302	82.4	83.3	9,318	4,096	506	1,566
	9 mos.	7,793	131,469	8,853	154,133	153,094	21,467	20,014	2,427	27,367	26,315	6,731	4,930	67,055	130,410	123,726	84.6	80.8	23,723	12,471	—1,881	6,194
Clinchfield	3 mos.	306	5,629	....	5,662	5,552	561	485	69	787	956	432	216	1,563	3,330	3,359	58.8	60.5	2,333	645	2,035	1,595
	9 mos.	306	17,911	....	18,024	17,404	1,729	1,468	203	2,815	3,127	1,280	682	4,780	10,653	10,615	59.1	61.0	7,371	1,875	6,118	4,773
Colorado & Southern	3 mos.	709	3,521	204	4,195	4,441	783	641	58	752	665	290	100	1,757	3,654	3,381	87.1	76.1	541	205	176	289
	9 mos.	709	9,880	476	11,702	12,199	1,813	1,624	169	2,205	1,942	809	296	5,034	10,125	9,692	86.5	79.4	1,577	684	533	815
Ft. Worth & Denver	3 mos.	1,037	4,635	289	5,605	5,263	743	728	80	773	711	138	208	2,433	4,537	4,497	80.9	85.4	1,068	319	—59	—26
	9 mos.	1,037	13,150	793	15,917	15,576	2,076	2,148	247	2,258	2,306	404	647	7,174	13,256	13,440	83.3	86.3	2,661	951	—617	—212
Delaware & Hudson	3 mos.	744	9,577	315	10,105	9,970	1,178	1,244	250	1,872	2,177	587	324	3,638	7,752	8,142	76.7	81.7	2,353	1,354	1,400	1,431
	3 mos.	744	29,859	852	31,343	30,749	3,392	3,276	762	5,848	6,126	1,637	1,007	11,129	23,577	23,505	75.2	76.4	7,765	4,357	3,981	3,908
Denver & Rio Grande Western	3 mos.	2,163	20,866	1,141	22,635	20,503	2,524	2,378	369	3,388	3,029	1,293	801	7,815	15,744	14,617	69.6	71.3	6,891	3,546	3,365	3,119
	9 mos.	2,163	59,220	2,388	63,299	58,882	7,209	6,582	1,099	9,908	8,628	3,540	2,331	21,719	44,815	41,073	70.8	69.8	18,484	9,532	9,512	8,913
Detroit & Toledo Shore Line	3 mos.	50	1,331	....	1,467	1,398	179	159	12	225	216	88	66	640	1,162	1,078	79.2	77.1	305	50	100	110
	9 mos.	50	4,882	....	5,265	4,893	562	491	37	694	724	265	205	2,021	3,651	3,400	69.3	69.5	1,614	504	441	392
Detroit, Toledo & Ironton	3 mos.	464	5,862	....	6,345	5,563	676	518	86	1,525	1,399	662	208	1,993	4,725	4,232	74.5	76.1	1,620	427	734	675
	9 mos.	464	18,805	....	20,047	17,574	1,838	1,686	215	4,284	3,875	1,827	630	5,920	13,613	12,221	67.9	69.5	6,434	1,243	3,886	3,520
Duluth, Missabe & Iron Range	3 mos.	516	13,429	....	15,069	12,809	1,101	1,086	210	1,207	1,218	550	44	3,170	6,312	5,875	41.9	45.9	8,757	4,618	4,304	3,378
	9 mos.	517	24,318	....	27,324	24,582	3,133	2,850	596	3,716	3,767	1,653	136	7,446	16,577	15,405	60.7	62.7	10,748	5,826	5,268	4,687

(Dollar figures are stated in thousands: i.e., with last three digits omitted)

Third Quarter and Nine Months' Figures of Calendar Year 1965

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1965	1964	Operating Expenses: Maint. Way and Structures: Total 1965	1964	Deprec. and Retirements 1965	Total 1965	Maint. Equipment: Total 1964	Deprec. and Retirements	Traffic	Transportation	Total 1965	Total 1964	Operating ratio 1965	1964	Net from railway operation	Railway tax accruals	Net Railway operating income 1965	1964
Duluth, Winnipeg & Pacific	3 mos.	174	1,857	....	1,860	1,735	291	504	17	164	159	3	....	596	1,096	1,243	58.9	71.6	763	165	340	134
	9 mos.	174	5,570	....	5,575	5,351	819	1,100	49	486	449	10	....	1,765	3,191	3,238	57.2	60.5	2,385	484	1,061	922
Elgin, Joliet & Eastern	3 mos.	205	9,245	....	12,951	11,863	1,117	1,045	100	2,043	1,634	397	131	4,493	8,797	8,070	67.9	68.0	4,153	2,176	1,267	1,431
	9 mos.	205	29,070	....	40,156	36,758	3,416	3,176	302	6,428	5,512	1,193	426	14,632	27,984	25,337	69.7	68.9	12,172	6,265	3,880	4,344
Erie Lackawanna	3 mos.	2,903	48,654	3,171	58,153	51,264	6,927	6,166	1,232	9,142	9,015	2,345	1,326	26,922	47,454	45,572	81.6	88.9	10,700	4,653	2,205	—2,551
	9 mos.	2,906	142,852	9,383	169,580	156,900	18,188	17,025	3,623	28,136	27,039	7,101	3,958	80,141	138,821	133,729	81.9	85.2	30,759	13,718	6,193	—2,182
Florida East Coast	3 mos.	572	4,659	8	4,766	4,672	756	837	121	837	821	358	156	1,334	3,477	3,459	72.9	74.0	1,290	272	653	688
	9 mos.	572	17,357	8	17,679	16,376	2,609	2,582	439	2,886	2,937	1,092	473	5,493	12,754	11,840	72.1	72.3	4,924	1,629	1,645	1,470
Georgia Railroad	3 mos.	323	1,807	35	2,081	1,917	272	292	30	401	377	117	132	879	1,811	1,738	87.0	90.7	270	125	183	64
	9 mos.	323	5,342	85	6,127	5,841	769	850	87	1,183	1,131	328	410	2,656	5,402	5,282	88.2	90.4	725	385	414	193
Grand Trunk Western	3 mos.	946	12,830	665	14,749	13,297	2,018	2,030	190	2,041	1,957	195	276	7,309	12,434	11,751	84.2	88.4	2,325	1,336	—2,104	—2,240
	9 mos.	946	42,750	1,790	48,182	43,682	6,010	5,811	572	6,545	6,412	596	844	22,160	37,900	35,564	78.7	81.4	10,282	3,927	—1,629	—2,350
Great Northern	3 mos.	8,261	66,941	3,326	75,693	68,317	11,082	12,762	1,452	12,028	10,926	3,197	1,745	25,517	54,123	52,754	71.5	77.2	21,570	9,409	11,123	6,489
	9 mos.	8,261	170,420	7,699	191,832	186,178	27,974	29,794	3,592	33,581	30,937	9,160	5,374	73,065	150,259	143,573	78.3	77.1	41,572	19,979	19,286	18,737
Gulf, Mobile & Ohio	3 mos.	2,744	19,039	642	20,996	18,777	2,730	2,663	275	4,072	3,901	1,031	850	7,331	15,993	15,302	76.2	81.5	5,003	1,819	2,199	1,492
	9 mos.	2,744	55,961	1,758	61,722	57,876	8,182	7,583	793	11,873	11,736	3,037	2,468	21,832	47,268	45,122	76.6	78.0	14,454	4,695	6,346	5,836
Illinois Central	3 mos.	6,461	57,482	6,244	68,691	67,007	9,589	9,196	1,267	13,192	12,110	3,309	1,908	26,883	55,440	54,404	80.7	81.2	13,251	6,336	4,632	4,756
	9 mos.	6,461	174,484	16,997	206,863	199,496	27,927	27,261	3,705	38,382	37,529	9,812	5,885	82,636	166,572	162,260	80.5	81.3	40,292	17,615	14,445	12,053
Illinois Terminal	3 mos.	339	2,060	....	2,366	2,197	253	248	15	361	281	75	116	911	1,806	1,705	76.3	77.6	560	179	27	12
	9 mos.	339	5,995	....	6,874	6,583	755	753	50	1,083	1,003	228	358	2,699	5,385	5,345	78.3	81.2	1,489	527	—19	—149
Kansas City Southern	3 mos.	894	10,778	306	12,317	11,769	1,300	1,241	167	1,692	1,619	460	345	3,953	7,748	7,381	62.9	62.7	4,569	1,224	1,997	2,075
	9 mos.	894	30,662	783	35,051	36,878	3,258	3,648	489	4,810	4,661	1,348	1,014	11,573	21,972	22,032	62.7	59.7	13,078	3,888	5,811	6,684
Lake Superior & Ishpeming	3 mos.	135	1,532	....	2,051	2,245	245	220	54	292	274	147	5	544	1,184	1,163	57.7	51.8	867	467	337	503
	9 mos.	135	3,602	....	4,618	4,414	718	579	163	886	788	407	15	1,306	3,162	2,710	68.5	62.5	1,455	759	744	768
Lehigh Valley	3 mos.	1,043	10,754	....	11,164	11,223	1,199	1,299	265	1,668	1,722	323	396	5,448	9,372	9,946	83.9	88.6	1,792	973	—416	—620
	9 mos.	1,046	32,909	....	34,032	34,330	3,564	3,921	796	4,831	5,313	1,027	1,200	16,807	28,518	30,041	82.8	87.5	5,514	2,952	—1,235	—1,420
Long Island	3 mos.	340	2,382	17,565	20,641	20,622	2,499	2,844	293	3,867	3,798	448	167	10,601	18,255	18,192	88.4	88.2	2,386	1,145	196	515
	9 mos.	340	7,036	50,367	59,477	59,402	7,917	8,696	890	11,702	11,719	1,340	572	31,137	54,618	54,120	91.8	91.1	4,859	3,404	—1,389	—316
Louisiana & Arkansas	3 mos.	746	6,665	149	7,243	6,600	741	763	57	1,010	896	345	282	2,342	4,658	4,359	64.3	66.0	2,585	794	1,237	1,029
	9 mos.	746	19,370	418	21,079	19,628	2,290	2,426	170	2,820	2,592	1,012	829	6,833	13,583	13,211	64.4	67.3	7,496	2,143	3,214	2,535
Louisville & Nashville	3 mos.	5,647	59,543	1,854	65,658	63,816	9,360	7,174	1,032	13,263	12,067	5,804	1,623	25,353	52,865	49,635	80.5	77.8	12,792	4,493	7,822	7,836
	9 mos.	5,647	182,083	4,792	199,570	191,482	25,311	22,881	3,135	40,403	36,785	17,091	5,056	76,885	158,692	151,138	79.5	78.9	40,877	14,336	23,938	21,518
Maine Central	3 mos.	933	4,848	6	5,033	4,686	1,047	941	86	997	937	289	77	1,767	4,214	4,006	83.7	85.5	819	353	340	170
	9 mos.	934	15,872	9	16,374	16,043	3,069	2,913	253	3,209	3,038	834	260	5,558	13,129	12,719	80.2	79.3	3,244	1,225	1,469	1,570
M-K-T Lines	3 mos.	2,904	12,017	5	12,572	12,905	2,163	2,371	287	2,610	2,503	693	540	5,343	11,297	11,609	89.9	90.0	1,275	1,081	—1,403	—1,333
	9 mos.	2,904	33,873	114	36,282	38,799	5,521	7,311	870	6,903	8,170	2,097	1,556	16,206	32,124	34,955	88.5	90.1	4,158	3,151	—4,029	—4,394
Missouri Pacific	3 mos.	9,149	68,173	1,999	76,957	75,128	10,658	10,586	1,130	13,116	12,497	3,711	1,877	27,693	56,873	56,390	73.9	75.1	20,084	5,116	9,531	8,968
	9 mos.	9,168	204,686	4,963	230,287	228,217	30,880	31,763	3,413	38,743	38,547	11,050	5,714	82,408	168,484	169,773	73.2	74.4	61,803	15,656	29,227	27,842
Monon	3 mos.	541	4,131	67	4,503	4,823	659	701	61	727	795	242	244	1,690	3,663	3,795	81.3	78.7	840	303	283	448
	9 mos.	541	12,811	201	13,972	14,242	1,637	1,895	178	2,223	2,421	754	775	5,268	11,019	11,299	78.9	79.3	2,954	895	1,288	1,185
New York Central	3 mos.	9,776	125,607	13,817	162,611	161,608	17,730	17,363	2,908	27,297	28,196	6,894	3,034	73,941	129,823	130,440	79.8	80.7	32,787	10,238	12,057	10,092
	9 mos.	9,797	385,316	38,871	491,119	477,971	52,437	51,035	8,777	83,453	84,671	21,209	9,460	226,512	395,504	388,746	80.5	81.3	95,614	34,367	30,509	25,098
Pittsburgh & Lake Erie	3 mos.	214	9,061	31	9,543	9,597	1,003	1,049	224	2,453	2,163	879	247	2,929	7,187	6,781	75.3	70.7	2,356	3,788	3,610	3,681
	9 mos.	214	26,169	103	27,909	25,669	2,878	3,380	613	8,589	7,587	2,950	725	8,716	22,622	21,459	81.1	83.6	5,287	9,387	8,987	9,407
New York, New Haven & Hartford	3 mos.	1,606	15,421	9,734	29,926	29,387	3,979	4,078	763	5,832	5,918	1,432	533	15,097	27,662	27,682	92.4	94.2	2,264	2,322	—3,628	—4,447
	9 mos.	1,617	48,144	28,867	89,713	90,394	12,367	12,613	2,278	17,674	18,139	4,328	1,766	46,054	84,714	84,826	94.4	93.8	4,999	6,827	—13,328	—12,219
Norfolk & Western	3 mos.	7,551	138,430	1,403	146,993	140,649	14,657	13,426	2,295	21,785	20,934	8,947	3,452	51,002	96,874	92,059	65.9	65.5	50,119	17,610	28,891	25,771
	9 mos.	7,569	412,317	3,726	437,382	413,377	41,491	39,817	6,890	65,360	62,198	25,223	10,547	152,048	286,222	270,767	65.4	65.5	11,160	54,126	86,338	75,138
Norfok Southern	3 mos.	593	2,164	....	2,211	2,217	361	395	65	382	380	133	142	730	1,820	1,876	82.3	84.6	391	153	104	33
	9 mos.	593	6,312	....	6,465	6,466	1,175	1,147	187	1,101	1,118	404	434	2,219	5,561	5,598	86.0	86.6	904	461	98	69
Northern Pacific	3 mos.	6,749	48,938	2,214	54,452	49,190	8,953	8,828	1,036	8,890	8,536	2,937	1,308	19,744	41,982	40,612	77.1	82.6	12,470	6,565	6,669	4,133
	9 mos.	6,768	130,521	5,512	145,335	137,876	23,372	23,548	3,354	26,713	26,047	8,692	4,135	58,431	122,117	117,740	84.0	85.4	23,218	16,047	10,836	9,177
Northwestern Pacific	3 mos.	328	2,514	....	2,527	2,817	344	519	53	136	199	4	19	772	1,343	1,719	53.2	61.0	1,184	201	424	328
	9 mos.	328	4,954	DR1	4,998	8,566	874	1,493	152	368	459	13	58	1,715	3,231	4,700	64.6	54.9	1,767	569	—153	911

(Concluded on next page)

Railway Age Service Page

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands: i.e., with last three digits omitted)

Third Quarter and Nine Months' Figures of Calendar Year 1965

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1965	Total (inc. misc.) 1964	Operating Expenses: Maint. Way and Structures: Total 1965	Total 1964	Deprec. and Retirements	Maint. Equipment: Total 1965	Total 1964	Deprec. and Retirements	Traffic	Transportation	Total 1965	Total 1964	Operating ratio 1965	Operating ratio 1964	Net from railway operation	Railway tax accruals	Net Railway operating income 1965	Net Railway operating income 1964
Pennsylvania	3 mos.	9,632	174,474	22,486	222,539	223,641	21,973	23,846	4,225	37,588	37,412	8,518	3,476	96,733	171,615	176,496	77.1	78.9	50,923	15,630	14,978	12,346
	9 mos.	9,632	525,844	62,809	666,454	647,698	65,764	67,591	12,873	109,109	112,509	25,102	10,247	297,692	518,876	514,346	77.9	79.4	147,577	45,933	37,155	32,355
Penn.-Reading Seashore Lines	3 mos.	341	1,827	232	2,211	1,995	535	408	165	453	368	75	13	1,445	2,581	2,441	116.7	122.3	—370	179	—1,110	—1,130
	9 mos.	341	5,478	413	6,273	5,706	1,412	1,278	430	1,241	1,236	226	39	4,229	7,337	7,206	117.0	126.3	—1,064	526	—3,129	—3,410
Piedmont & Northern	3 mos.	150	1,434	....	1,487	1,381	144	137	20	96	91	29	108	349	836	862	56.2	55.2	651	272	162	144
	9 mos.	150	4,421	....	4,580	4,372	401	417	56	309	302	88	332	1,004	2,457	2,314	53.6	52.9	2,123	931	573	505
Reading	3 mos.	1,276	23,200	1,292	26,503	24,229	3,434	3,461	633	4,433	4,270	1,557	618	10,849	20,796	20,574	78.5	84.9	5,707	1,883	2,451	956
	9 mos.	1,276	69,091	4,134	78,773	71,643	10,454	10,301	1,825	13,905	14,296	4,779	1,888	32,675	63,412	63,026	80.5	88.0	15,360	5,579	5,778	—104
Richmond, Fred. & Potomac	3 mos.	118	3,816	1,175	5,936	5,865	499	475	103	882	882	208	93	2,215	4,130	3,947	70.0	67.3	1,806	617	995	648
	9 mos.	118	12,924	3,411	19,311	18,559	1,594	1,506	296	2,840	2,794	647	278	6,919	12,998	12,469	67.3	67.2	6,313	2,865	2,561	2,028
St. Louis-San Francisco	3 mos.	4,676	31,229	376	33,873	32,854	4,731	4,567	588	5,318	4,928	1,944	1,264	12,790	26,412	26,300	78.0	80.1	7,461	2,916	3,380	2,568
	9 mos.	4,676	96,693	933	104,385	97,711	14,604	12,863	2,292	15,250	14,728	5,734	3,840	38,550	79,250	77,413	75.9	79.2	25,135	10,249	11,283	8,504
St. Louis Southwestern	3 mos.	1,554	20,801	....	21,015	18,854	1,934	2,042	225	3,292	2,856	1,479	609	7,304	13,962	12,344	66.4	65.5	7,053	1,551	5,822	4,911
	9 mos.	1,554	64,700	2	65,345	59,909	5,443	5,631	649	9,179	8,311	4,331	1,843	21,509	40,336	36,802	61.7	61.4	25,009	8,545	16,994	13,323
Seaboard Air Line	3 mos.	4,123	35,111	3,948	42,451	41,756	5,212	5,159	744	8,173	7,909	2,749	1,697	16,806	34,029	33,192	80.2	79.5	8,422	3,416	4,020	4,301
	9 mos.	4,123	112,251	11,519	134,832	129,885	18,137	17,833	2,276	24,742	24,177	7,987	5,086	51,352	105,695	101,701	78.4	78.3	29,137	11,973	13,274	13,076
Soo Line	3 mos.	4,689	23,036	147	23,802	21,037	4,036	3,644	321	3,118	2,991	803	707	8,557	17,398	16,606	73.1	78.9	6,403	1,947	2,858	1,520
	9 mos.	4,688	62,672	256	64,697	61,895	10,110	9,427	969	8,691	9,197	2,421	2,128	24,640	48,604	47,473	75.1	76.7	16,093	5,045	6,811	6,175
Southern Railway	3 mos.	6,254	67,365	2,408	74,393	70,797	9,178	9,415	1,449	13,381	13,134	4,225	1,746	25,918	54,772	51,035	73.6	72.1	19,622	6,124	8,408	10,448
	9 mos.	6,254	202,797	6,085	223,151	214,599	26,124	27,577	3,734	38,953	37,797	12,453	5,461	74,664	158,949	150,710	71.2	70.2	64,202	21,317	28,850	31,505
Alabama Great Southern	3 mos.	327	3,954	179	4,610	4,575	635	694	112	947	905	266	148	1,716	3,803	3,547	82.5	77.5	807	329	58	481
	9 mos.	327	12,318	389	14,187	13,015	1,917	2,079	289	2,828	2,747	799	465	4,910	11,246	10,540	79.3	81.0	2,942	1,017	929	1,152
Cinn., New Orleans & Tex. Pac.	3 mos.	337	9,405	246	10,322	9,674	1,234	1,224	226	2,373	2,426	845	295	3,393	7,980	7,495	77.3	77.5	2,342	824	1,317	1,605
	9 mos.	337	28,217	556	30,925	29,604	3,492	3,840	702	7,317	7,245	2,631	921	9,926	23,844	22,587	77.1	76.3	7,081	2,569	4,529	5,037
Georgia Southern & Florida	3 mos.	396	1,617	70	1,823	1,809	436	332	85	178	212	30	52	732	1,568	1,462	86.0	80.8	255	94	—385	—158
	9 mos.	396	5,550	187	6,286	6,330	1,204	1,070	172	577	688	90	170	2,221	4,717	4,529	75.0	71.5	1,569	294	—391	117
New Orleans & Northeastern	3 mos.	203	2,445	133	2,807	2,819	398	417	84	757	725	292	98	940	2,475	2,335	88.2	82.8	332	234	157	330
	9 mos.	203	7,302	299	8,298	8,330	1,290	1,371	256	2,154	2,150	905	305	2,695	7,297	7,004	87.9	84.1	1,000	710	525	1,044
Southern Pac. incl. Pac. Electric	3 mos.	11,800	190,287	6,825	206,195	193,650	23,247	23,036	2,465	39,834	40,080	12,415	3,277	81,319	157,273	153,403	76.3	79.2	48,922	20,807	18,490	17,124
	9 mos.	11,805	544,821	16,262	588,863	564,338	66,798	64,859	6,893	115,026	114,924	36,554	10,133	233,839	453,572	435,681	77.0	77.2	135,291	57,707	53,927	57,306
Spokane, Portland & Seattle	3 mos.	936	9,021	296	9,935	8,762	1,275	1,171	176	1,625	1,409	412	112	3,821	7,257	6,778	73.0	77.4	2,678	1,128	1,044	891
	9 mos.	936	26,029	701	28,557	26,111	3,745	3,644	517	4,488	4,271	1,218	347	11,021	20,889	19,925	73.1	76.3	7,668	3,166	3,141	2,191
Texas & Pacific	3 mos.	1,847	15,174	543	17,252	16,819	2,341	2,172	282	3,030	2,997	996	662	6,860	13,765	13,828	79.8	82.2	3,488	977	1,276	887
	9 mos.	1,847	46,431	1,393	52,651	53,078	7,096	6,535	786	8,784	8,310	2,882	1,942	20,783	41,374	40,335	78.6	76.0	11,277	3,007	4,064	4,332
Toledo, Peoria & Western	3 mos.	239	1,888	....	2,000	1,842	245	233	19	175	176	44	159	624	1,368	1,268	68.4	68.9	632	223	150	141
	9 mos.	239	5,671	....	6,003	5,755	707	786	60	568	558	132	476	1,865	4,100	4,047	68.3	70.3	1,903	682	518	431
Union Pacific	3 mos.	9,571	121,064	7,925	139,825	138,245	16,429	16,407	1,731	24,028	24,699	10,143	3,472	49,593	101,226	100,445	72.4	72.7	38,600	16,947	17,685	14,629
	9 mos.	9,571	348,702	18,316	397,696	392,066	46,667	46,342	4,748	73,913	74,838	28,980	10,908	145,168	299,147	294,446	75.2	75.1	98,549	46,844	42,329	34,913
Ann Arbor	3 mos.	294	2,438	....	2,580	2,335	264	269	21	429	387	147	52	1,103	1,929	1,788	74.7	76.7	652	171	285	295
	9 mos.	294	6,908	....	7,114	6,072	760	774	64	1,234	1,135	389	161	3,307	5,783	5,189	81.3	85.5	1,330	506	216	168
Western Maryland	3 mos.	872	12,042	....	12,593	11,444	1,663	1,479	183	2,676	2,547	974	383	4,223	9,497	8,878	75.4	77.6	3,095	1,998	2,199	2,156
	9 mos.	872	36,354	....	38,118	34,739	5,195	4,752	543	8,799	7,966	2,938	1,159	12,912	29,831	27,781	78.3	80.0	8,287	4,927	6,229	5,920
Western Pacific	3 mos.	1,177	14,163	891	15,452	14,056	1,796	1,794	268	2,551	2,240	732	792	5,433	11,755	11,239	76.1	80.0	3,697	1,237	2,147	1,257
	9 mos.	1,177	40,047	1,894	42,946	39,885	5,206	5,086	808	6,773	6,296	1,886	2,388	15,584	33,400	31,909	77.8	80.0	9,546	3,655	5,086	3,925

NOTE: New Interstate Commerce Commission qualifications for the various classes of railroads became effective Jan. 1, 1965. Operating revenues of at least $5,000,000 are required to qualify a railroad as Class I. Hence, several railroads formerly included in this compilation are no longer listed. Three other railroads once included (Wabash, Pittsburgh & West Virginia and New York, Chicago & St. Louis) are now part of the Norfolk & Western.

MARKET OUTLOOK

Carloadings

Loadings of revenue freight in the week ended Dec. 11 totaled 580,762 cars, the Association of American Railroads announced on Dec. 16. This was a decrease of 2,032 cars, or 0.3%, compared with the previous week; an increase of 13,026 cars, or 2.3%, compared with the corresponding week last year; and an increase of 41,440 cars, or 7.7%, compared with the equivalent 1963 week. Ton-miles generated by carloadings in the week ended Dec. 11 are estimated at 14.0 billion, an increase of 6.9% above the corresponding week of 1964, and 16.4% above the 1963 week.

REVENUE FREIGHT CARLOADINGS
For the week ended Saturday, Dec. 11

District	1965	1964	1963
Eastern, including Allegheny and Pocahontas	230,874	230,223	216,394
Southern	124,123	114,595	108,604
Total Eastern and Southern Districts	354,997	344,818	324,998
Northwestern	65,673	66,978	58,755
Central Western	119,725	120,184	119,068
Southwestern	40,367	35,756	36,501
Total Western Districts	225,765	222,918	214,324
Total All Roads	580,762	567,736	539,322
Commodities:			
Grain and Grain products	55,852	48,856	51,890
Livestock	2,849	2,762	3,002
Coal	123,057	115,765	115,075
Coke	7,148	9,260	7,439
Forest Products	40,750	39,413	36,961
Ore	20,221	25,067	14,653
Merchandise l.c.l.	7,330	9,962	14,348
Miscellaneous	323,555	316,651	295,954
Dec. 11	580,762	567,736	539,322
Dec. 4	582,794	568,964	558,430
Nov. 27	520,580	504,131	467,073
Nov. 20	601,953	599,529	586,095
Nov. 13	604,645	618,254	588,615
Cumulative total, 50 weeks	28,528,251	28,082,363	27,998,683
Estimated revenue ton-miles (billions) 50 weeks	672	637	602

PIGGYBACK CARLOADINGS—U.S. piggyback loadings for the week ended Dec. 11 totaled 21,144 cars, compared with 18,481 for the corresponding 1964 week. Loadings for 1965 up to Dec. 11 totaled 994,577 cars, compared with 860,675 for the corresponding period of 1964.

IN CANADA—Carloadings for the nine-day period ended Nov. 30 totaled 116,997 cars, compared with 84,860 for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada		
Nov. 30, 1965	116,997	33,716
Nov. 30, 1964	91,013	28,371
Cumulative Totals		
Nov. 30, 1965	3,654,158	1,146,606
Nov. 30, 1964	3,623,907	1,106,361

FREIGHT-TRAIN CARS

► *Atlantic Coast Line.*—Ordered 100 100-ton covered hoppers, with center trough hatches, to be built of aluminum by Magor Car. Reynolds Metals Co. will supply the aluminum for the $2 million car order.

► *Fruit Growers Express.*—Ordered 345 70-ton, 50-ft RBL-type insulated bunkerless cars equipped with cushion underframes and roller bearings, to be built in the Alexandria, Va., shop. Deliveries will begin in second quarter 1966.

► *Great Northern.*—Ordered 50 65½-ft gondolas equipped with fixed ends and 100-ton trucks from Gunderson Brothers for delivery beginning in May 1966.

► *Rock Island.*—Ordered 50 70-ton bulkhead flat cars from General Steel Industries at a cost of about $1 million. Deliveries will begin in second-quarter 1966.

► *Soo Line.*—Authorized acquisition of 100 4,750-cu-ft-capacity aluminum covered hopper cars for grain service; 25 insulated box cars equipped with unloading mechanisms for bulk handling of potatoes; 10 high-slide covered gondolas, and five high-side gondolas for movement of extra-long structural steel components. Soo Line will also put 300 box cars through a heavy repair and upgrading program. Total cost of the authorizations will be $4 million.

► *Union Pacific.*—Added 842 units to its previously announced 1966 freight-car program. UP's new list puts its total acquisitions at 7,000 units, including 1,000 mechanical refrigerator cars for Pacific Fruit Express and 1,486 box cars which will be rebuilt in company shops.

► *Bad Order Ratio 0.3% Lower Than Last Year.*—Class I roads on Nov. 1 owned 1,487,352 freight cars, 7,536 less than on Nov. 1, 1964, according to AAR report summarized below. Bad Order Ratio was 0.3% lower than on Nov. 1, 1964.

	Nov. 1, 1965	Nov. 1, 1964	Change
Car ownership	1,487,352	1,494,888	—7,536
Waiting repairs	84,745	90,298	—5,553
Repair ratio	5.7%	6.0%	—0.3%

PIGGYBACK

► *Trailer Train.*—Ordered an additional 544 cars as follows: 40 low-level flats and 150 standard-level flats from ACF; 174 standard-level flats from Bethlehem; and 180 low-level flats from Pullman-Standard.

MAINTENANCE EXPENDITURES

► *Up 1.2% in Third Quarter.*—Expenditures by Class I roads for maintenance of equipment, way and structures in the third quarter of 1965 were up about $8.9 million, compared with the third quarter of 1964, according to report of the AAR Bureau of Railway Economics, summarized below:

Maintenance of Way and Structures	$320,455,192	$316,654,454	+1.2
Maintenance of Equipment	440,060,809	435,011,322	+1.2
Totals	$760,516,001	$751,665,776	+1.2

YOU OUGHT TO KNOW

Frisco set to build: Grading will begin early in January over the route of a new line which Frisco plans to build to serve a new mineral-production area in southeastern Missouri. The grading and drainage contract was awarded to an Omaha, Neb., firm, on a bid of approximately $2.9 million. Frisco has the 32.3-mile scheduled for completion May 1, 1967, and it's expected that traffic will start to move over the route about two months later.

Unit-train equipment: Truck side frames and bolsters for the 139 new Burlington aluminum hopper cars (RA, Dec. 6, p. 31) were supplied by Scullin Steel Co. This St. Louis foundry also produced the cast-steel draft arms which make up the ends of the steel underframes for the lightweight cars which are being assembled in two unit trains for service between a southern Illinois coal mine and a major new electric generating station north of St. Louis, Mo.

Connecting line concept broadened: Any railroad, even an intermediate line, participating in a joint route to a gateway may now claim connecting line status there. The U.S. Supreme Court so ruled in telling a lower court to look again at a case in which it upheld the ICC's dismissal of a Western Pacific complaint. The complaint alleges unlawful discrimination between connecting lines. On that basis it assails the refusal of Union Pacific and Northern Pacific to give WP's Bieber route the same joint-rate arrangements that they give the Southern Pacific through Portland, Ore. WP's line between Bieber, Calif., and Stockton is the middle segment of the Bieber route. The route gets north from Bieber to Portland over the Great Northern, and south from Stockton over the Santa Fe.

BLF&E names a winner: A Baltimore & Ohio locomotive engineer is the $500-savings-bond first-prize winner in an essay contest—on the topic "I Need a Locomotive Helper (Fireman)"—sponsored by the Brotherhood of Locomotive Firemen & Enginemen. According to the union, the contest drew 206 entries from men now working as engineers. BLF&E gave 10 prizes in the competition, with runner-up awards going to men on Illinois Central, Chicago & North Western, Santa Fe (two prizes), Northern Pacific, Canadian National, Southern Pacific, Canadian Pacific and South Buffalo.

Delagrave leaves CN: Pierre Delagrave has resigned as vice president, passenger sales and services, Canadian National, to accept a senior executive position in another industry—reportedly Domtar, a Montreal-based manufacturer and processor of pulp, paper, building materials and chemicals. He has been succeeded in the CN post by Jean H. Richer, formerly manager of the railway's Champlain Area.

Northeast Corridor gaining speed: The Northeast Corridor experimental train operations rolled up some more test miles December 18. A six-car conventional Silverliner clocked 90 mph on several stretches of the Pennsylvania's main line between Bristol and Trenton and between Millham Jct. and Monmouth Jct. A number of round trips were made on each section with television cameras monitoring pantograph performance. Eastbound freight and westbound passenger tracks were cleared for the stainless steel speedsters. PRR, General Electric and City of Philadelphia personnel conducted the tests.

New club president: Long Island Rail Road's James A. Schultz, vice president in charge of public relations for the line, has been elected president of the New York Railroad Club. It's the first time in the 93-year history of the club (which is made up of officers of 28 railroads and 296 railroad supply companies) that a public relations officer has held the top post.

Truck tonnage: Intercity truck tonnage in the week ended Dec. 11 showed no percentage change from the previous week, but was 6.4% ahead of the volume in the corresponding week of 1964, according to American Trucking Associations.

Current statistics

Net income	
9 mos., 1965	$540,000,000
9 mos., 1964	500,000,000
Carloadings, revenue freight	
50 wks., 1965	28,528,251
50 wks., 1964	28,082,363
Freight cars on order	
Nov. 1, 1965	41,612
Nov. 1, 1964	30,351
Freight cars delivered	
10 mos., 1965	65,939
10 mos., 1964	56,564
Serviceable cars	
Nov. 1, 1965	1,402,607
Nov. 1, 1964	1,404,590

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THE ACTION PAGE

Did the traffic tide turn in 1965?

"We're not winning yet, but we've almost tied the score in the competition for traffic," is one railroad man's summing-up for 1965. We agree. This paper feels the industry has good cause for satisfaction with gains made during the year.

Railroads will have handled almost 700 billion ton-miles of traffic by the end of 1965. It will be the biggest surge of traffic since World War II's all-time railroad traffic peak of 727 billion ton-miles in 1944.

The comeback is strong. More importantly, it is soundly structured. Shippers are getting more for their money when they buy transportation from railroads. How much of a better buy was the 700 billion ton-miles the shippers bought in 1965? In cash terms, revenue for the average ton-mile in 1965 was about 14% less than the average ton-mile revenue in the 1957-59 period. And this was accomplished by the carriers despite about a 20% rise in material prices and wage rate charges in the same period and a 10% rise in the Consumer Price Index. Shippers, in short, are turning back to railroads in an effort to hold down their over-all distribution costs.

Cash saving to shippers isn't the only pressure behind the railroad comeback story. Railroad service is better for a whole catalogue of reasons. Railroad fleets are better than they have ever been. Motive power is better. Equipment is bigger, more tailored to shippers' requirements. There is more of it coming—as fast as builders and railroad shops can build it. Computers, communications systems, marketing efforts, piggyback and steady streamlining and upgrading of the industry work force into an efficient team are all helping make railroad service a better buy than it has ever been.

In short, it is a complex tide that is turning. It is a tide that involves the work of thousands of dedicated railroad men. Railroads will do more than just "even the competitive score" in 1966. We expect them to be winning the struggle for traffic from now on out.

Anti-L&D work is a job for everyone

Was there a yearend plum for railroads in the loss and damage situation? We think there will be when the statisticians get through combing the figures for 1965.

It will be the highest L&D bill in history. It will almost certainly top $150 million. But the rate at which the L&D payout was increasing was cut in half last year. There are good indications that L&D cost railroads under 21¢ per 1,000 ton miles in 1965, compared with 21.43¢ in 1964—and about 15.5% of net railway operating income this year compared with 17.35% last year. These pleasant developments in L&D trends have been achieved despite continuing gains in operating efficiency—conditions that some industry experts feel have a direct, adverse effect on L&D. Trends toward heavier loads, bigger cars, faster speeds and more powerful motive power continued in 1965.

The hopeful sign? The fact that improvement in the L&D situation is possible even though railroads continue to gain in operating efficiency may very well prove to be the railroad achievement of the Sixties.

Not everyone reads the figures this way. Experienced men are using the figures to argue that trends are pointing to disaster. Take the $150-million L&D payout, for example. Even though it represents a rise over 1964, it represents less of a rise than one might have expected from a straight arithmetical coupling of L&D to the rise in both ton-miles and revenues. "But, is it an improvement?" ask the pessimists. "Should current L&D performance be riding upward with traffic trends and should the railroads' traffic level off—or turn downward—next year, the industry would have a perfectly disastrous L&D payout at the end of 1966."

But this paper still prefers the hopeful signs the optimists are pointing to. Equipment designed to minimize L&D is increasing by the day in railroad carfleets. L&D prevention efforts are being started on a few railroads that haven't done much in this area in recent years.

Computer analyses are yielding a shadowy outline of L&D realities. Supplier research and development of devices to cut down on future L&D is at an all-time high. Inspection of damaged shipments, though still grossly inadequate in the view of most experts, is on the rise in some areas. Shipper cooperation and effort in L&D prevention is also at an all-time high as railroad customers strive to reduce their distribution costs.

Carrier programs for making railroaders L&D-prevention conscious are on the increase. Most of all, the L&D-prevention dialogue is becoming more penetrating and meaningful by the day. The industry, the railroad suppliers and the shippers are putting some of their best minds to work on the problem.

Continued application to the industry's four-point program (more inspections, equipment acquisitions and upgrading, more L&D prevention effort and better handling by operating forces) should show up in a slowed rate of L&D increase in the months ahead—and then a drop in the L&D ratios. But it will happen only if all carriers work at it.

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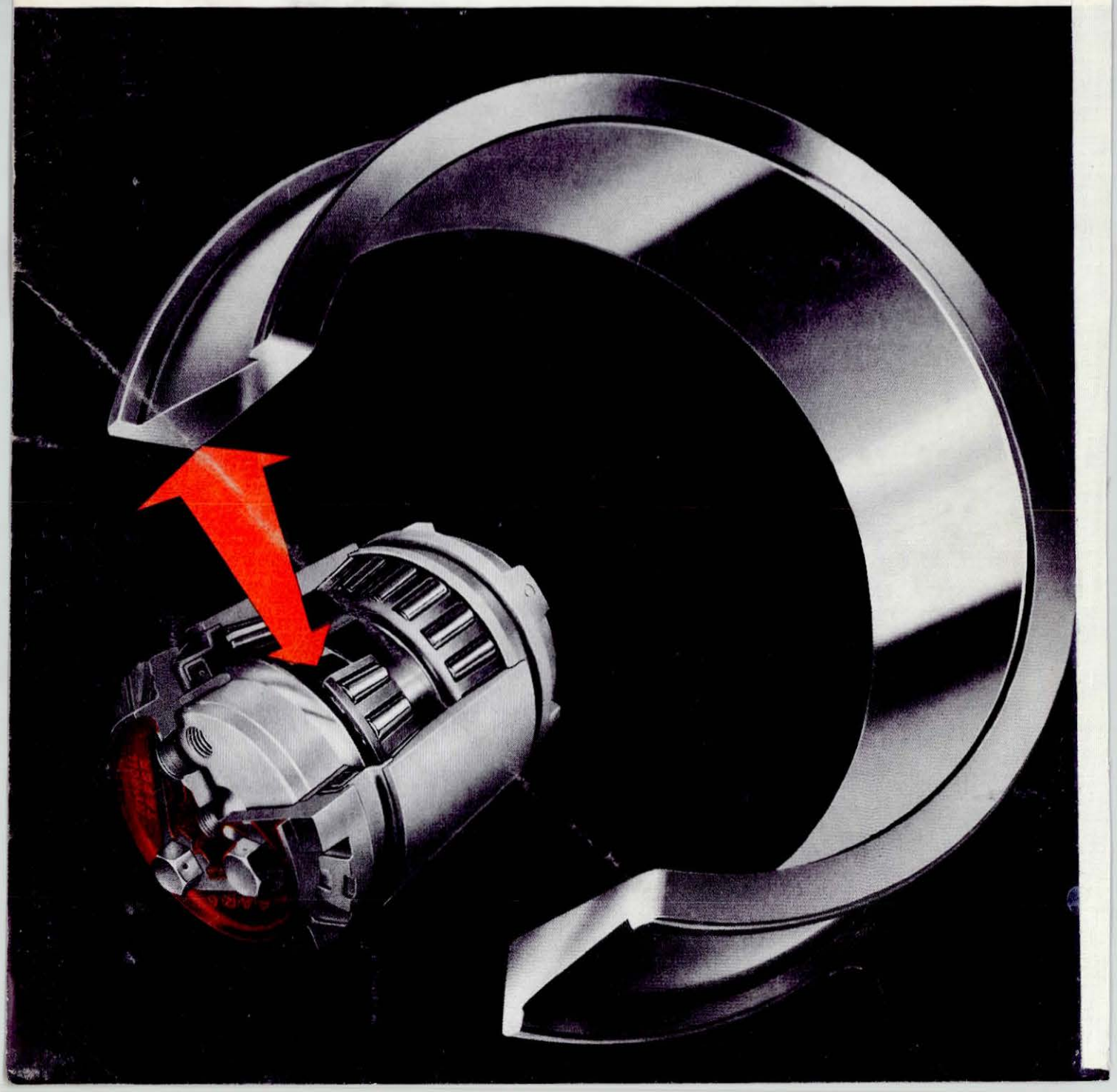
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